

JOINT
PUBLIC NOTICE

CHARLESTON DISTRICT, CORPS OF ENGINEERS
69A HAGOOD AVENUE
CHARLESTON, SOUTH CAROLINA 29403
and the
S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT
1362 McMillan Avenue, Suite 400
Charleston, South Carolina 29405

REGULATORY DIVISION
Refer to: P/N #2005-1W-155-C

10 June 2005

Pursuant to Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1344), and the South Carolina Coastal Zone Management Act (48-39-10 et.seq.) an application has been submitted to the Department of the Army and the S.C. Department of Health and Environmental Control by

NORTH SAVANNAH PROPERTIES, LLC
c/o JERRY WHITLOW
348 JEFFERSON STREET
SAVANNAH, GEORGIA 31401

for a permit to place fill material in freshwater wetlands contiguous to

SALT WATER CREEK

At locations adjacent to U.S. Hwy. 17-A and south of it's intersection with S.C. Hwy 170-A in lower Jasper County, South Carolina (Latitude 32.1368°, Longitude 81.0424°).

In order to give all interested parties an opportunity to express their views

NOTICE

is hereby given that written statements regarding the proposed work will be received by both of the above mentioned offices until

12 O'CLOCK NOON, MONDAY, 11 JULY 2005

from those interested in the activity and whose interests may be affected by the proposed work.

The proposed work consists of the placement of fill material in wetlands for the development of a residential subdivision. Of the approximately 5.40 acres of freshwater waters to be impacted, 2.61 acres are jurisdictional and 2.79 acres are considered isolated and non-jurisdictional. The areas of wetlands proposed to be filled or excavated will be for the construction of road crossings and other related development activities. As mitigation for project impacts, the applicant proposed to preserve on-site 389.30 acres of wetlands, with an average 25' wide upland buffer. The purpose of this work is for the residential development of the Telfair Plantation Subdivision.

NOTE: Plans depicting the work described in this notice are available and will be provided, upon receipt of a written request, to anyone that is interested in obtaining a copy of the plans for the specific project. The request must identify the project of interest by

public notice number and a self-addressed stamped envelope must also be provided for mailing the drawings to you. Your request for drawings should be addressed to the

**U.S. Army Corps of Engineers
ATTN: REGULATORY DIVISION
Post Office Box 919
Charleston, South Carolina 29402-0919.**

The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the South Carolina Department of Health and Environmental Control in accordance with provisions of Section 401 of the Clean Water Act. As such, this notice constitutes a request, on behalf of the applicant, for certification that this project will comply with applicable effluent limitations and water quality standards. The work shown on this application must also be certified as consistent with applicable provisions the Coastal Zone Management Program (15 CFR 930). The District Engineer will not process this application to a conclusion until such certifications are received. The applicant is hereby advised that supplemental information may be required by the State to facilitate the review.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would impact approximately 5.40 acres of freshwater wetlands associated with adjacent estuarine substrates and emergent wetlands utilized by various life stages of species comprising the red drum, shrimp, and snapper-grouper management complexes. Our initial determination is that the proposed action would not have a substantial individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and the National Marine Fisheries Service (NMFS). Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

Pursuant to Section 7(c) of the Endangered Species Act of 1973 (as amended), the applicant has provided a protected species survey for the property associated with the activity described above. Based upon this report, the District Engineer has determined that the project is not likely to adversely affect any Federally endangered, threatened, or proposed species or result in the destruction or adverse modification of designated or proposed critical habitat. This public notice serves as a request for written concurrence from the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service on this determination.

The applicant has performed an intensive archeological survey of the project and is preparing a report documenting the findings. Five sites have been identified by the applicant as potentially eligible for inclusion in the National Register of Historic Places. Once the applicant completes this report, it will be coordinated with the State Historic Preservation Office and this office. By copy of this notice, the District Engineer is seeking the views of the State Historic Preservation Office in making a determination of effect. If it is determined that these sites are eligible for the National Register of Historic Places and will be impacted by the undertaking, a Memorandum of Agreement will be developed to establish a plan for treatment of the sites.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state, with particularity, the reasons for holding a public hearing.

10 June 2005

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the activity on the public interest and will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency (EPA), under authority of Section 404(b) of the Clean Water Act and, as appropriate, the criteria established under authority of Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the project must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the project will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. A permit will be granted unless the District Engineer determines that it would be contrary to the public interest. In cases of conflicting property rights, the Corps of Engineers cannot undertake to adjudicate rival claims.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

If there are any questions concerning this public notice, please contact me at 843-329-8044 or toll free at 1-866-329-8187.



Debra W. King
Project Manager
Regulatory Division
U.S. Army Corps of Engineers

1.0 Site Location and Description: The Telfair Plantation Development Tract is a 562.84-acre tract owned by the applicant, North Savannah Properties, LLC, and is located on the east side of U.S. Highway 17-A in Jasper County, SC. The property is primarily wooded, with a mixture of pines and hardwoods, freshwater wetlands, and saltwater marshes. The site is an extremely attractive development property, being well situated in rural Jasper County, South Carolina, and near the major metropolitan area of Savannah, Georgia.

The site contains a variety of habitats typical of the southern South Carolina coast and includes the following major habitat/community types:

Upland Hammocks - The upland portion of this property consists predominantly of mature, natural plant communities dominated by loblolly pine (*Pinus taeda*), live oak (*Quercus virginiana*), sweetgum (*Liquidambar styraciflua*), red maple (*Acer rubrum*). The understory of this community was dominated by cabbage palm (*Sabal palmetto*), wax myrtle (*Myrica cerifera*), bracken fern (*Pteridium aquilinum*), and cinnamon fern (*Osmunda cinnamomea*).

Freshwater Impoundments - There are two distinct wetland habitat types on the project site. The freshwater wetlands have previously been ditched and altered to allow for controlled flooding and water removal. This is common in the Low country of South Carolina on plantations that grew rice and managed for waterfowl. The impoundments on the project site have not been flooded in at least 20 years and are dominated by stands of loblolly pine (planted), Chinese tallow (*Sapium sebiferum*), and willow (*Salix* sp.). The understory vegetation consists of spikerush (*Eleocharis* sp.), salt meadow cordgrass (*Spartina patens*), cattails (*Typha augustifolia*), sawgrass (*Cladium jamaicense*), common three-square (*Scirpus pungens*), and soft-stemmed bulrush (*Scirpus validus*).

Saltwater Marsh - The saltwater wetlands on the project site consist of abandoned rice fields with relic dikes and ditches. Plant species composition consists of black needlerush (*Juncus roemerianus*), Smooth cordgrass (*Spartina alterniflora*), spikerush (*Eleocharis sp.*), and cutgrass (*Zizaniopsis miliacea*).

Isolated Depressional Wetlands – There are isolated depressional wetlands located on the property. These wetlands are topographically depressed from the surrounding landscape and are hydrologically influenced from ground water and surface run-off. These isolated wetlands range in size from 0.07-acres to 1.56-acres. The vegetation within these isolated wetlands is very dense and typically resembles the species composition of nearby contiguous wetlands and may contain tupelo, cypress, red maple, sweetgum, carex, fetterbush and a variety of ferns.

There are 394.7-acres of wetlands and 168.14-acres of uplands contained within the boundaries of the project site. Wetlands contained within the site include 2.79-acres of isolated non-jurisdictional depressional wetlands, 77.82-acres of jurisdictional non-critical area wetlands, and 314.09--acres of jurisdictional critical area wetlands. All wetlands, with the exception of the 2.79-acres of isolated non-jurisdictional wetlands, are considered 404 jurisdictional wetlands.

Wetland resources contained within the project represent approximately 70% of the total site area, which is far greater in wetland resources than other master planned developments located throughout the low country of South Carolina. North Savannah Properties, LLC believe impacts to wetland resources to facilitate construction and development of the proposed project are not dissimilar to other developments of similar size.

2.0 Project Description and Need: The proposed project involves creation of an up scale residential development on the 562.84-acre site. The development is intended to compliment and be synergetic with the adjacent property and its land uses. The uses of the adjacent property involve a riding academy, stables, riding trails, etc. The purpose of the master planned residential development which is the subject of this application is consistent with this use and provides lot sizes to accommodate similar uses. Approximately 5.4-acres of wetlands

(jurisdiction and non-jurisdiction) will be impacted to develop the site as planned to meet the intended purpose and be economically viable.

The population growth in the Savannah and surrounding area is occurring at a significant rate. Residential housing needs growth is concomitant with population increases and, thus, the need for housing accelerates. The location of the proposed development is in close proximity to commercial and industrial areas and will provide housing within an easy commute.

3.0 Description of Impacts: In order to accomplish the above stated project purpose, the applicants propose to impact, by excavation and fill activities, 2.61-acres of 404 jurisdictional wetlands. The applicant also proposes to fill 2.79-acres of isolated, non-jurisdictional wetlands. These impacts are necessary in order to construct road crossing and conduct other development activities as indicated on the project plans.

4.0 Project Purpose: For clarity purposes, the project purpose statement has been divided into “basis project purpose” and “overall project purpose”. This approach is consistent with the evaluation of alternatives required by the 404(b)(1) Guidelines and may assist the COE in conducting their analysis of alternatives. It is clearly recognized that while the COE may consider our stated “basis” and “overall” purpose, it must determine these issues without undue deference to our views.

4.1 The overall purpose of the proposed project is to create an economically viable, up-scale, master planned residential development.

4.2 The basic purpose of the work required to facilitate development of the proposed project by converting wetlands to uplands to create additional highland for roadways and residential development. It is understood that the “basic purpose” statement is used to determine “water dependency” for alternative analysis purposes. Beyond that, the project purpose, as stated in the “overall purpose” paragraph clearly defines the applicant’s intent for this undertaking.

5.0 Alternative Analysis: The 562.84-acre project site includes 394.7-acres (2.79-acres isolated non-jurisdictional wetlands, 77.82-acres of non-critical area wetlands and 314.09-acres critical area wetlands) wetlands, which is $\pm 70\%$ of the total site. Developing a Master Planned project has been and continues to be a complex process. Numerous iterations of development plans were considered in an effort to create an economically viable, up-scale project with minimal impacts to aquatic resources that meets the defined purposes of the applicant. Significant progress has occurred and overall planning has maintained its original course of action and has now come to completion with the plan before you.

The challenges and opportunities to developing this property make the site particularly well suited for wetland master plan permitting. Comprehensive master planning aids local governments as well as developers in planning the financing and constructing the infrastructure, including, roads, drainage systems, sewer, water and other utility services, resulting in lower development costs, lower costs for providing public services and, ultimately, lower costs for consumers. Additionally, comprehensive wetland master plan permitting provides an opportunity for evaluation of cumulative impacts and encourages avoidance and minimization of impacts to significant wetland systems that are capable of providing wetland functions after site development is complete. During the Master Planning process, compensatory mitigation for unavoidable impacts is identified and methodologies for protection, enhancement, and/or restoration are established in advance of project impacts.

Comprehensive wetland master plan permitting provides an opportunity for evaluation of cumulative impacts, and encourages avoidance and minimization of impacts to significant wetland systems that are capable of providing wetland functions after site development is complete. During this process, compensatory mitigation is also identified and established in advance of project impacts. Comprehensive master plan permitting also provides the developer, local government and state and federal regulatory/review agencies with certainty as to how development will/can proceed and allows for the most efficient use of economic and land resources. For example, master planning aids developers and local governments in planning, financing and construction of infrastructure, including roads, drainage systems, sewer, water and

other utility services, resulting in lower development costs, lower costs for providing public services, and, ultimately, lower costs for consumers. The alternative is “piece-meal” development. The master planning concept is key to accomplishing the purpose of the proposed Telfair Plantation Development project which is to create an economically viable, up-scale, master planned residential development. The goal for the master planning process was not only a means of defining the highest and best land uses for the site but included efforts to avoid and minimize overall project impacts, including potential impacts to water quality, freshwater wetlands, saltwater wetlands, archaeological and cultural resources and endangered or threatened species. Towards that end, significant resources have been expended on various plans, surveys, assessments and reports, including a wetland delineation and surveys, threatened and endangered species assessment, archaeological and cultural resources survey, soils investigation, topographic surveys, preliminary engineering reports, land planning and marketing analysis. Prior to finalizing the wetland master plan submitted with the application, the applicant met with the US Army Corps of Engineers (COE) and other Federal and State agencies (USFWS, SCDNR, OCRM, and DHEC-EQC) on-site late in 2004. The final wetland master plan and mitigation plan submitted in support of the application incorporates project revisions suggested by the agencies during pre-application coordination.

The wetland master plan proposed with the application identifies wetlands and the intended development concepts, and represents a considerable effort on the part of the applicant to avoid and minimize overall environmental impacts and proposes adequate, onsite compensatory mitigation for those impacts that cannot be avoided. Requested impacts (5.4-acres) are minor relative to the total site area (562.84-acres), representing far less than 1 percent of the total project site. Ninety nine percent (99%) of wetland resources contained within the site are to be preserved and/or enhanced. It is not feasible or practical to avoid all of the wetlands scattered throughout the site and maintain a rational project design with the flexibility necessary to construct a large, master planned residential development.

Following is a presentation of impacts for the specific activities requested with this application and a discussion of alternatives and justification considering cost, technology and logistics for each activity.

Road and Utilities Construction

It is necessary to construct an extensive interior road system to provide access into and throughout the project site. Due to the location and configuration of wetlands on the site, a functional, efficient and safe road network cannot be constructed without impacting wetland resources. Alternatives for constructing roads through wetland systems include bridging and filling. Both bridge and fill alternatives are technically and logistically possible, however, the difference in the cost of bridge construction (\pm \$2,400.00/LF) as opposed to construction on fill (\pm \$900.00/LF) is \pm \$1,500.00 per linear foot. Due to the additional cost associated with bridge construction, this alternative is not considered feasible for the proposed project.

Proposed road crossings are located to minimize impacts to wetland resources while providing necessary and desirable access throughout the site. Any existing roads (silvicultural, etc.) that exist have been utilized to the extent practicable and appropriate. All road crossings will be adequately culverted to accommodate existing and anticipated water flows and prevent flooding of adjacent upland properties. Additional minimization of impacts is provided by incorporating, where practicable, utilities within proposed road right-of-ways. The 0.83-acres of impact to 404 jurisdictional wetlands proposed with the application represent the most practicable alternative for providing necessary access and utility services to the proposed community. The individual impacts required for each crossing or roadway embankment improvement are very minor with the largest of these impacts being approximately 0.30-acres.

Lot Development

In order for the proposed project to be economically viable, creation of a minimum number of residential for sale and development is essential. It is technically and logistically possible to create these residential lots anywhere on the project site,

however, the value added to the overall project and to the individual product to be sold by implementation of a professionally designed and master planned up-scale development is key to creating an economically viable and successful project and achieving the project purpose.

Purchasers coming into an upscale residential development, such as the one proposed here, demand top quality products and services to include active and passive recreational amenity available in the immediate area or nearby. Market preference and economic factors drive competitive developments to provide an optimum number of residential lots in order to be competitive in the market place and support the cost of infrastructure and services. A loss of only a few of the necessary lots will adversely impact the project's financial and economic feasibility.

Impacts to 404 jurisdictional wetlands for the creation of residential development parcels have been avoided to the maximum extent practicable and feasible. The 4.57-acres of wetland fill (1.78-acres of jurisdictional wetlands and 2.79-acres of isolated non-jurisdictional wetlands) proposed for lot development is, for the most part, are small areas or jurisdictional ditches, with the exception of the isolated areas where impacts are as much as 1.56-acres. The proposed impacts represent the most practicable alternative for maintaining a rational land plan and creating the quantity and quality of products for an economically viable and successful project.

The above discussion address avoidance and minimization efforts conducted by the applicant and clearly indicates that there are no feasible alternatives to the proposed activity which will reduce overall adverse impacts and achieve the project purpose of creating an economically viable, up-scale, master planned residential community on the project site. The proposed compensatory mitigation for unavoidable impacts, discussed below, will enhance and restore wetland functions to on-site wetland systems, including enhancement to water quality and wildlife habitat, through buffers and hydrology/water flow restoration. Through avoidance, minimization and the compensatory mitigation proposed, impacts to overall on-site wetland are minimal (less than 1% of the total on-site wetlands).

The site is an extremely attractive development property, being well situated near Savannah, Georgia with access to an existing highway. Residential development projects do not lend themselves well to the alternative analysis processes defined and/or envisioned by the 404(b)(1) Guidelines. The alternative focus for alternative analyses in residential development tends to be alternatives within the site. Additionally, locating a 562.84-acre site in the nearby surrounding area is unlikely since tracts of this size are unavailable unless you attempt to purchase, from willing agreeably sellers, numerous smaller tracts that are all connected or adjacent to create the needed acreage to create a development such as the one being proposed.

6.0 Mitigation: Proposed compensatory mitigation for project impacts includes preservation/enhancement of 406.65-acres of land on-site consisting of 389.3¹-acres of wetland resources and 17.35-acres of adjacent upland buffers. Buffers are proposed to be an average of 25 feet in width in residential area. The specific mitigation activities include 406.65-acres of wetland preservation and enhancement by buffering. Additionally, as indicated on the worksheets, the 25% requirement for restoration/enhancement credits from sources other than buffering has not been met. It is evident that there are no on-site opportunities for restoration or enhancement actions on the project site beyond those minor actions mentioned above. Given the minor nature of the impact and the fact that the impact represent far less than 1% of the total project site and the significant acreage (wetlands and upland buffers) that are being protected, a variance is hereby requested in accordance with the SOP. The Project Manager can grant a 25% variance to the required restoration/enhancement credit requirements. Since there are no on-site opportunities and in light of the information mention above, a variance appears to be in order and is hereby requested. All mitigation areas will be preserved in perpetuity by deed restrictive covenant and deeded to a Property Owners Association (POA). It is noted that significant effort was expended in an attempt to identify on-site restoration opportunities. Two (2) existing causeway sites were identified and it is the intent of the applicant to restore these sites by removing the existing causeways and pipes (0.2-acres) down to or slightly below the existing wetland grade thereby restoring on-site natural hydrology/water flow and circulation to an

¹ Those wetland areas being preserved that are located within existing intact impoundments will be managed in accordance with a management plan approved by the Corps of Engineers and the SC Department of Health and Environmental Control to facilitate improved productivity and habitat value.

approximate 0.14-acre area. Since these areas of restoration are small in size and mitigation credit return, and the expense to monitor the area to insure the intended enhancement occurs is expensive, no credit will be taken by the applicant for this effort. It does however indicate that significant efforts went into an on-site evaluation for restoration opportunities and this was the only site identified. As the project will be developed in phases, the applicant proposes to submit final, detailed development plans to the COE and DHEC for each phase, prior to beginning work under the requested permit in each phase. Submittals will be made at final plat approval for each phase by the local governing body. Deed restrictive covenants will be recorded on all mitigation areas simultaneously with the subdivision plat of each phase of development and prior to beginning work within each phase. The worksheets for computing adverse impacts, mitigation credits, and the summary sheets are attached.

7.0 Endangered Species: A Threatened and Endangered Species Assessment was conducted for the Telfair Plantation Development site. The assessment concluded that, bald eagles are the only species protected by the Endangered Species Act that are likely to occur within the project site. An eagle's nest has been located and an eagle management plan (see Attachment #1) has been developed. The plan is, by copy of this application, being coordination with the US Fish and Wildlife Service as part of this evaluation process.

8.0 Cultural Resources/Historic Properties: An intensive archeological survey of the project site was conducted. A report was developed and documented the findings of the survey. Five (5) sites were identified as potentially eligible for inclusion on the National Register for Historic Places. A Memorandum of Agreement (MOA) is being developed in concert with the State Historic Preservation Officer (SHPO) to define the treatment of the potentially eligible sites.

9.0 Cumulative Impacts: Consideration of cumulative impacts is as follows:

Land Development Activities: The construction of the proposed residential development is not likely to cause other construction or development activities in the surrounding area. Given population growth in the nearby area, it is likely that other similar developments will occur regardless of the construction of this development. It is also noted that should the planned

Bald Eagle Management Plan For Telfair Plantation

With the help of data provided by the South Carolina DNR, Newkirk Environmental personnel located an active bald eagle nest on an upland hammock near the external dike at the far southern portion of the project site (See Attachment). Upland hammocks are ideal locations for the large raptors due to the local impoundments and rivers along with the mature canopy on the project site. SCDNR has monitored this eagle location for a number of years and has specific annual use and nesting records.

Eagles are currently protected under the Endangered Species Act of 1973 (EA), The Bald and Golden Eagle Act (BGA) and The Migratory Bird Treaty Act (MBTA). There is discussion and effort underway to remove this species from the EA in the coming months. Draft guidance has been written and is currently under review. Timelines for de-listing of this species focus on the fall of 2004. Until this species is de-listed, current guidelines outlined in the EA must be used for planning. Should this species be removed from the EA, protection and management guidelines will remain in place through the BGA and MBTA. Specific guidance and management recommendations after de-listing are not known at this time; however, it is anticipated that lessening of restrictions will occur.

Under the current EA guidelines, nothing can be done that will “take” a threatened or endangered species. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt engage in any such conduct”. Modification of a protected species’ habitat is included as an impact that could cause a “taking”. To avoid such issues, the US Fish and Wildlife Service has issued *Management Guidelines for the Bald Eagle In The Southeast Region*. This document provides management guidelines that, if followed, protect landowners from liability associated with “taking” of a threatened or endangered species. Under these guidelines, a specific set of management measures must be implemented that include the following:

- A “Primary Zone” is established around the nest tree using a 750’ radius. Within this zone, no land use changes are permitted. This includes logging, commercial, residential and industrial development and mining.
- A “Secondary Zone” is established around the tree using a 1500’ radius. Within this zone, no major land use changes should occur during the nesting season (October – May).

As a specific part of the management plan for the eagle nest located on Telfair Plantation, no activity will be permitted on the upland hammock where the current nest is located. In the event that regulations are changed or the nest becomes “abandoned” (verified by SC DNR), Telfair Plantation with reserve the right to proceed with development activity on the hammock. Telfair Plantation will include an educational brochure to all new homeowners to prevent any unauthorized entry into the nesting area or other forms of disturbance.

The management of the impoundments (See Impoundment Management Plan) will increase foraging and feeding habitat for the local Bald Eagle population. Because the current plan will institute “moist soil management”, no harmful chemicals will be used in producing feed for waterfowl. The overall management plan for the impoundments is for passive use only by the homeowners i.e. bird watching, which should allow the eagles unlimited use for foraging.

Where homes will exist across the impoundment from the Bald Eagle Nest, an undisturbed twenty-five foot upland buffer will exist. This will provide a natural barrier between the homeowners and the eagles.

development not proceed, the land is likely to be developed in a piece-meal manner and the on-site and off-site mitigation will not occur and wetland resources will be impacted to some unknown degree.

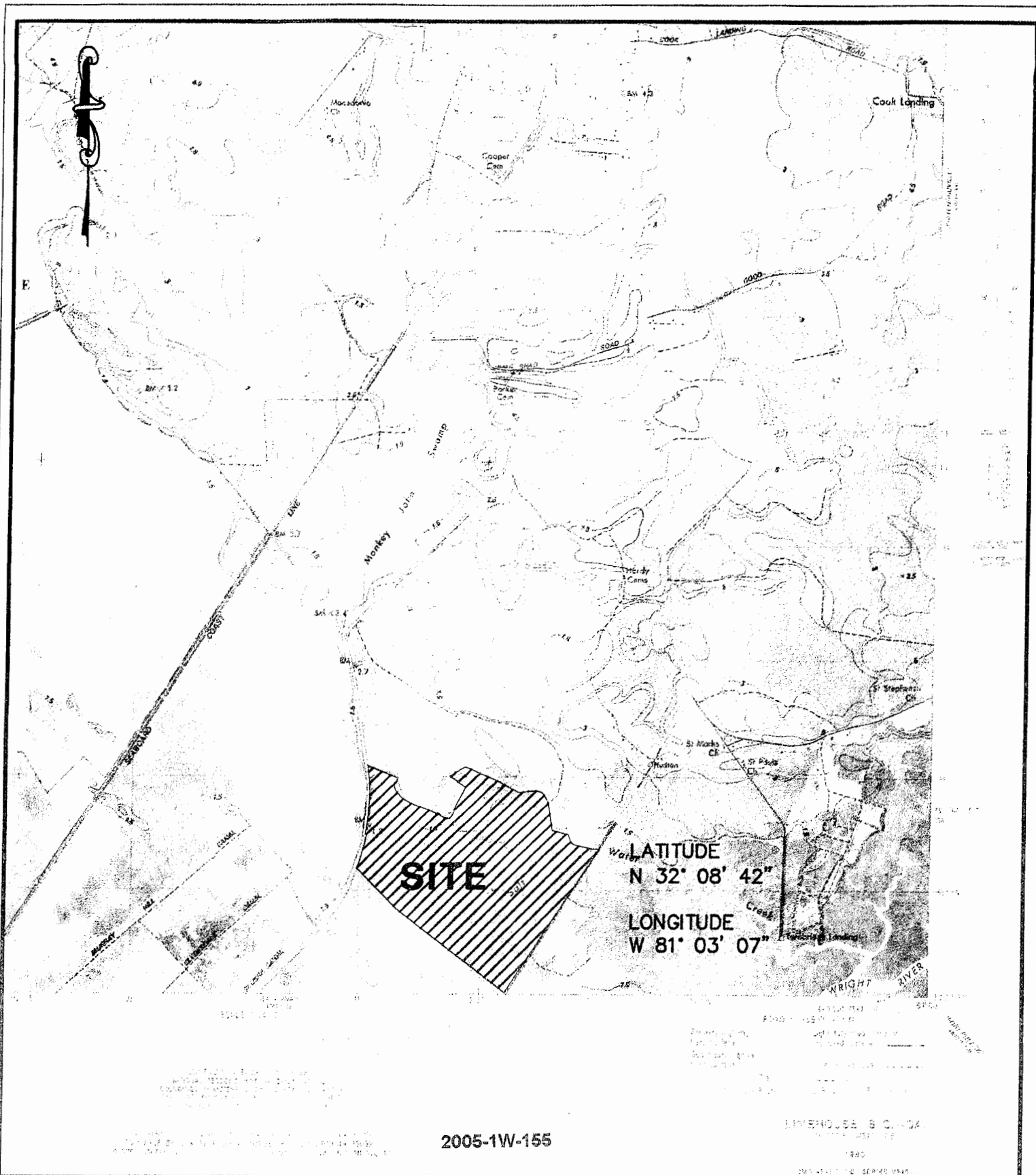
Public Infrastructure Projects: Construction of the proposed residential development is not expected to cause the construction of public infrastructure projects, including roadways, power lines, sewer lines, water lines, and stormwater facilities, since the developer has accounted for these actions in its proposal. Also, North Savannah Properties, LLC proposed roadway connection and internal road system will provide access to all areas of the development. The proposed project will not, in and of itself, create a need for additional offsite roadways in the area.

Based on the above, there are no reasonably foreseeable, significant direct or secondary impacts to the environment related to this project when added to other past, present, and reasonably foreseeable future projects. However, if other residential projects are designed and developed in the manner that the Telfair Plantation Development has set as an example, 99% of the aquatic resources (wetlands) will be protected in perpetuity less than 1% will be negatively affected by future undertaking. The minimization of impacts to aquatic resources will protect substantial portions of the landscape for future generations. Such protection is the key to attaining the goal of Section 404 of the Clean Water Act by protecting and/or restoring the chemical, physical and biological integrity of waters of the United States.

10.0 Summary: Master planning and permitting large development projects are dependant upon having the flexibility to implement sound land planning and engineering design principles to create master plans which are often conceptual at the time of permitting, but which must include adequate land for development to economically justify the project, reasonable access, construction of utilities and stormwater systems and appropriate location of the various land uses. The alternative to wetland master planning is the piecemeal development of the property making wetland avoidance more problematic and evaluation of cumulative impacts difficult.

North Savannah Properties, LLC believes the proposed wetland master plan represents the most practicable alternative for accomplishing the project purpose when considering the cumulative effects, both adverse and beneficial, of the overall project, including compensatory mitigation. Impacts to 404 jurisdictional wetland resources (2.61- acres) proposed with the master plan represent far less than 1% of the total project site (562.84-acres) and less than 1% of total 404 jurisdictional wetlands (394.7-acres). Approximately 50% of impacts proposed with the wetland master plan are to isolated non-jurisdictional wetland resources. A direct federal permit is not required to impact the isolated wetlands, however, the wetland master plan permit application provides an opportunity for the COE and other state and federal agencies to review and evaluate secondary impacts associated with federally regulated activities in 404 jurisdictional wetlands. Total on-site mitigation, including wetland preservation and enhancement by establishing upland buffers, is 406.65-acres, representing \pm 72% of the project site. The proposed wetland master plan for the Telfair Plantation Development not only minimizes adverse impacts to the aquatic ecosystem but also enhances the wetlands remaining on the property. It is evident that the land use features included in this project will provide synergy between the proposed project and the adjacent land uses. Telfair Plantation is an environmentally sensitive and environmentally sustainable development because of its incorporation of wetland preservation/enhancement into the overall development plan allowing the interconnection of human and aquatic life styles that compliment each other.

2005-1W-155



2005-1W-155

LIVENOWSEA & COMPANY
1940



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-6533
Fax: (912) 232-2920

QUAD. LOCATION FOR TELFAR PLANTATION SUBDIVISION

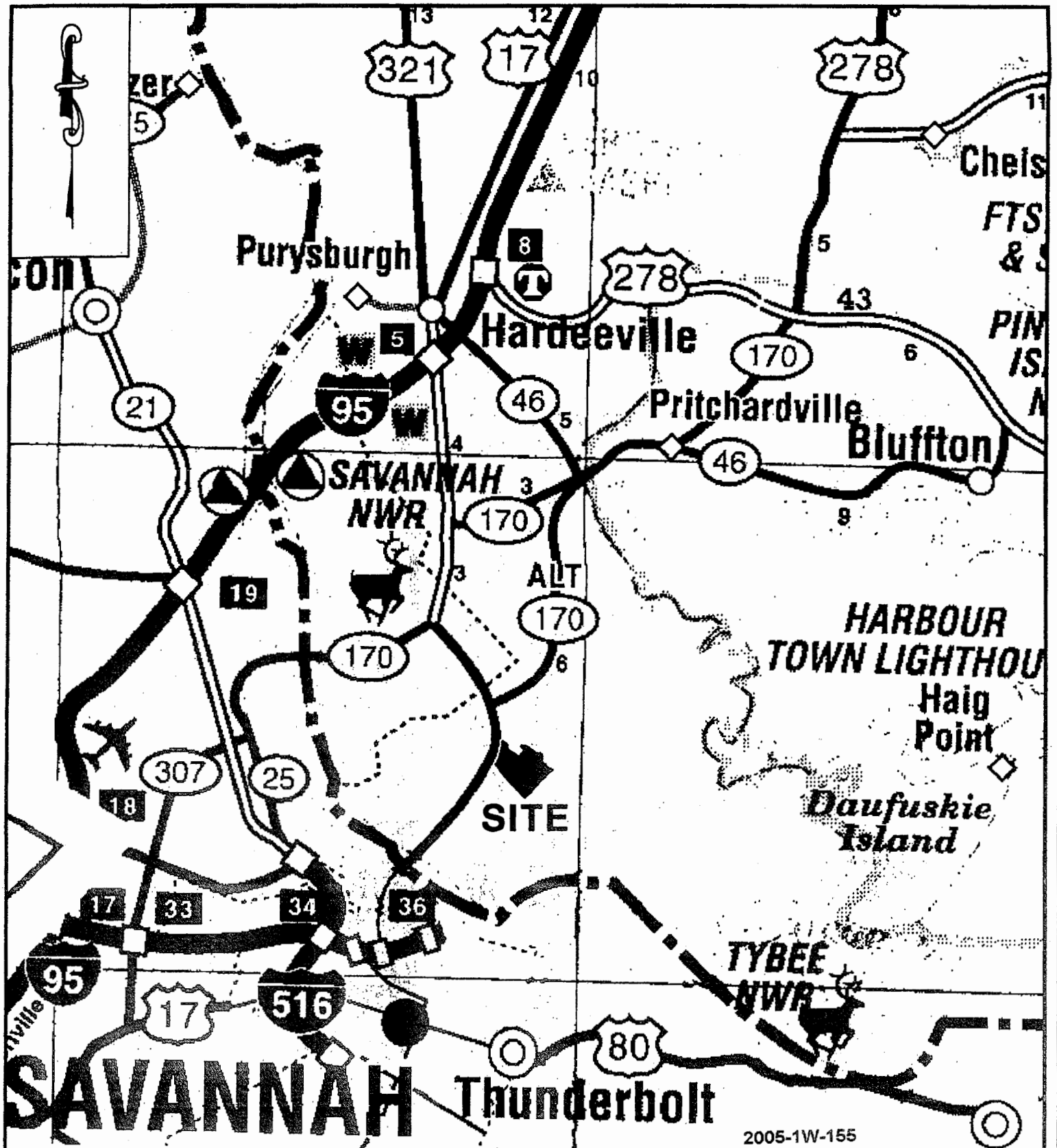
**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 1 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	N/A
PROJECT:	03-594



2005-1W-155



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-8533
Fax: (912) 232-2920

COUNTY RD. LOCATION FOR TELFAR PLANTATION SUBDIVISION

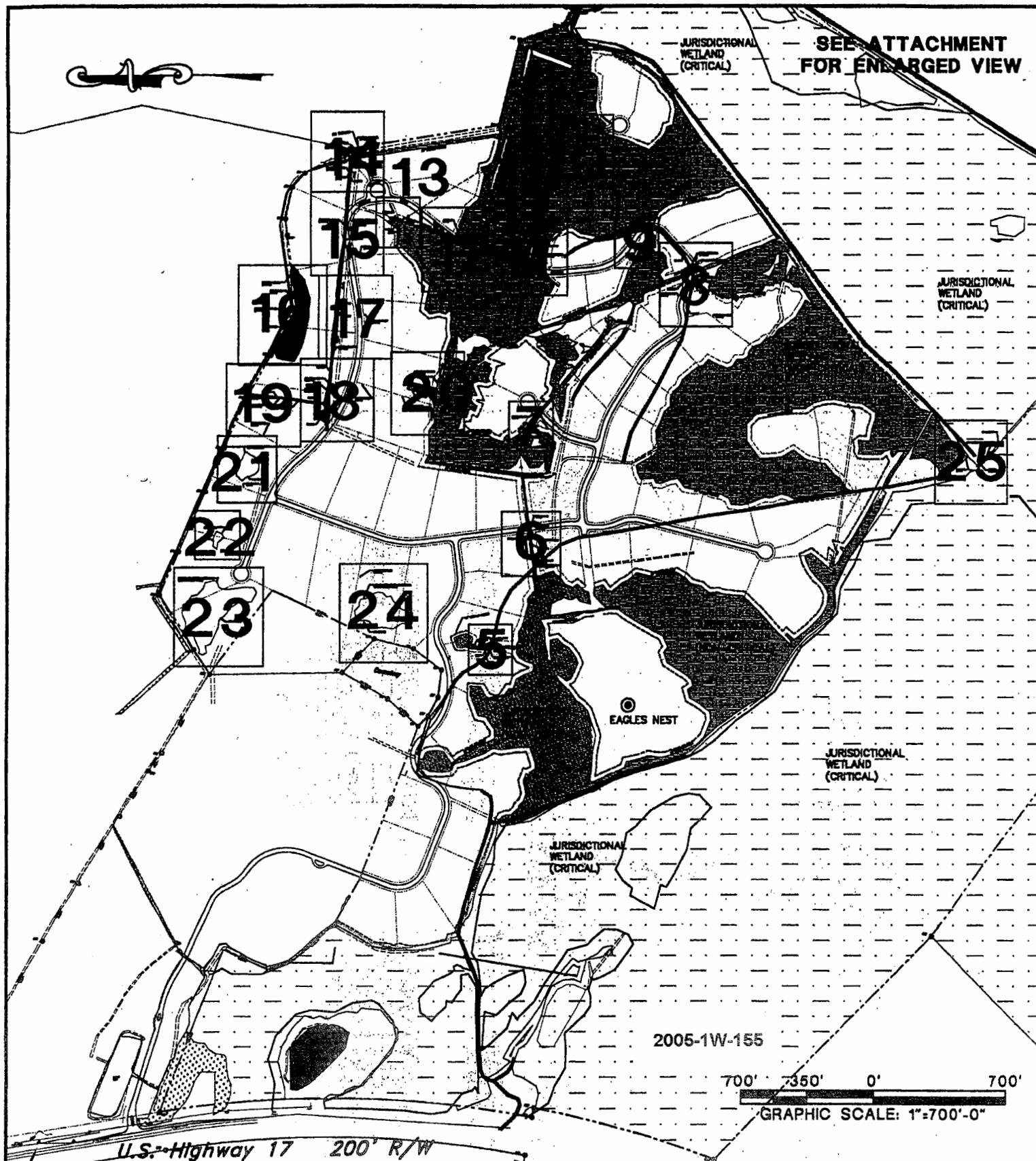
**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 2 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	N/A
PROJECT:	03-594



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-8533
Fax: (912) 232-2920

KEY PLAN FOR TELFAR PLANTATION SUBDIVISION





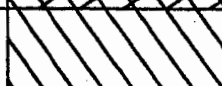




**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 3 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=700'
PROJECT:	03-594

LEGEND	
FEATURE	SYMBOL
PROPERTY BOUNDARY/LOT LINE	
JD WETLANDS (CRITICAL AREA)	
JD WETLANDS (NON-CRITICAL AREA)	
FILL JD WETLANDS (NON-CRITICAL AREA)	
EXCAVATE JD WETLANDS (NON-CRITICAL AREA)	
FILL ISOLATED WETLANDS (NON-CRITICAL AREA)	
JD WETLANDS (CRITICAL AREA) TO REMAIN (NO IMPACT)	
JD WETLANDS (NON-CRITICAL AREA) TO REMAIN (NO IMPACT)	
UPLAND BUFFER AREA	

2005-1W-155



**EMC ENGINEERING
SERVICES, INC.**

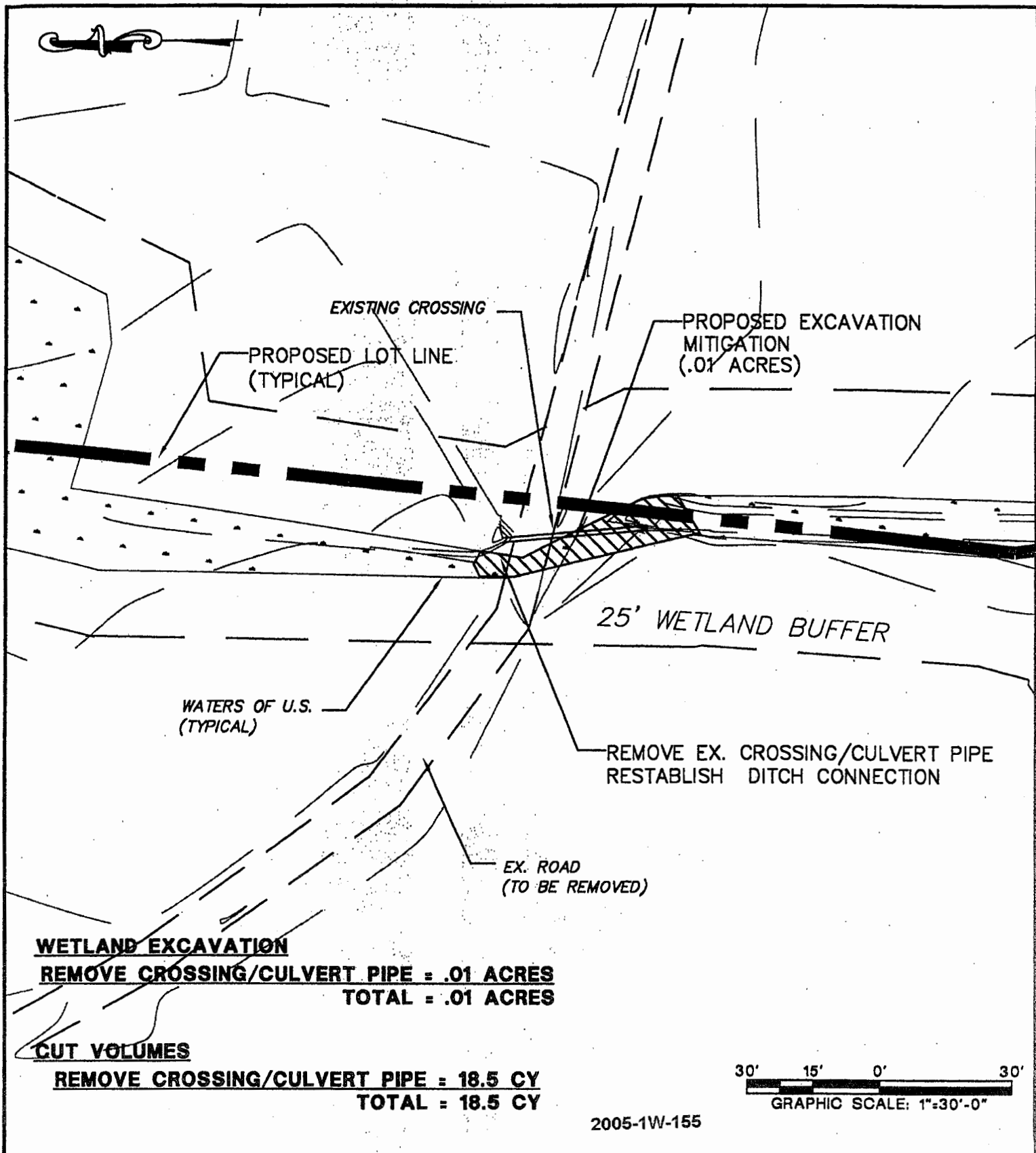
Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-8533
Fax: (912) 232-2920

LEGEND FOR TELFAIR PLANTATION SUBDIVISION

**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**
COUNTY: JASPER
APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 4 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	N/A
PROJECT:	03-594



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-6533
Fax: (912) 232-2920

WETLAND IMPACT PLAN FOR TELFAIR PLANTATION SUBDIVISION

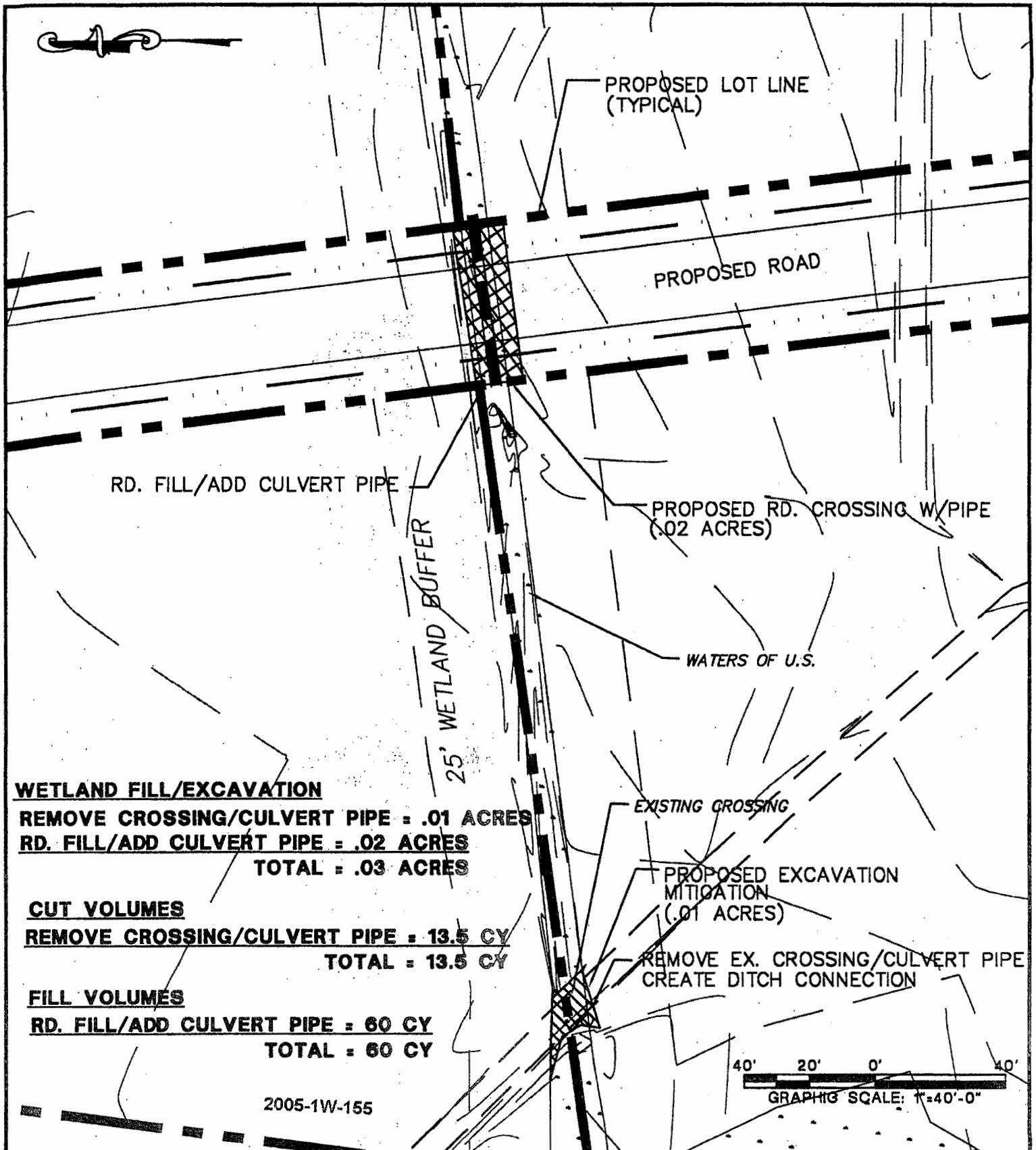
**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 5 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=30'
PROJECT:	03-594



WETLAND FILL/EXCAVATION

REMOVE CROSSING/CULVERT PIPE = .01 ACRES
RD. FILL/ADD CULVERT PIPE = .02 ACRES
TOTAL = .03 ACRES

CUT VOLUMES

REMOVE CROSSING/CULVERT PIPE = 13.5 CY
TOTAL = 13.5 CY

FILL VOLUMES

RD. FILL/ADD CULVERT PIPE = 60 CY
TOTAL = 60 CY



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-6533
Fax: (912) 232-2920

**WETLAND IMPACT PLAN FOR
TELFAIR PLANTATION SUBDIVISION**

**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 6 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=40'
PROJECT:	03-594

PROPOSED RD. CROSSING W/PIPE
(.02 ACRES)

25' WETLAND BUFFER

WATERS OF U.S.
(TYPICAL)

PROPOSED LOT LINE
(TYPICAL)

WETLAND FILL

RD. FILL/ADD CULVERT PIPE = .02 ACRES

TOTAL = .02 ACRES

FILL VOLUMES

RD. FILL/ADD CULVERT PIPE = 48 CY

TOTAL = 48 CY

2005-1W-155

30' 15' 0' 30'
GRAPHIC SCALE: 1"=30'-0"



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-8533
Fax: (912) 232-2920

**WETLAND IMPACT PLAN FOR
TELFAR PLANTATION SUBDIVISION**

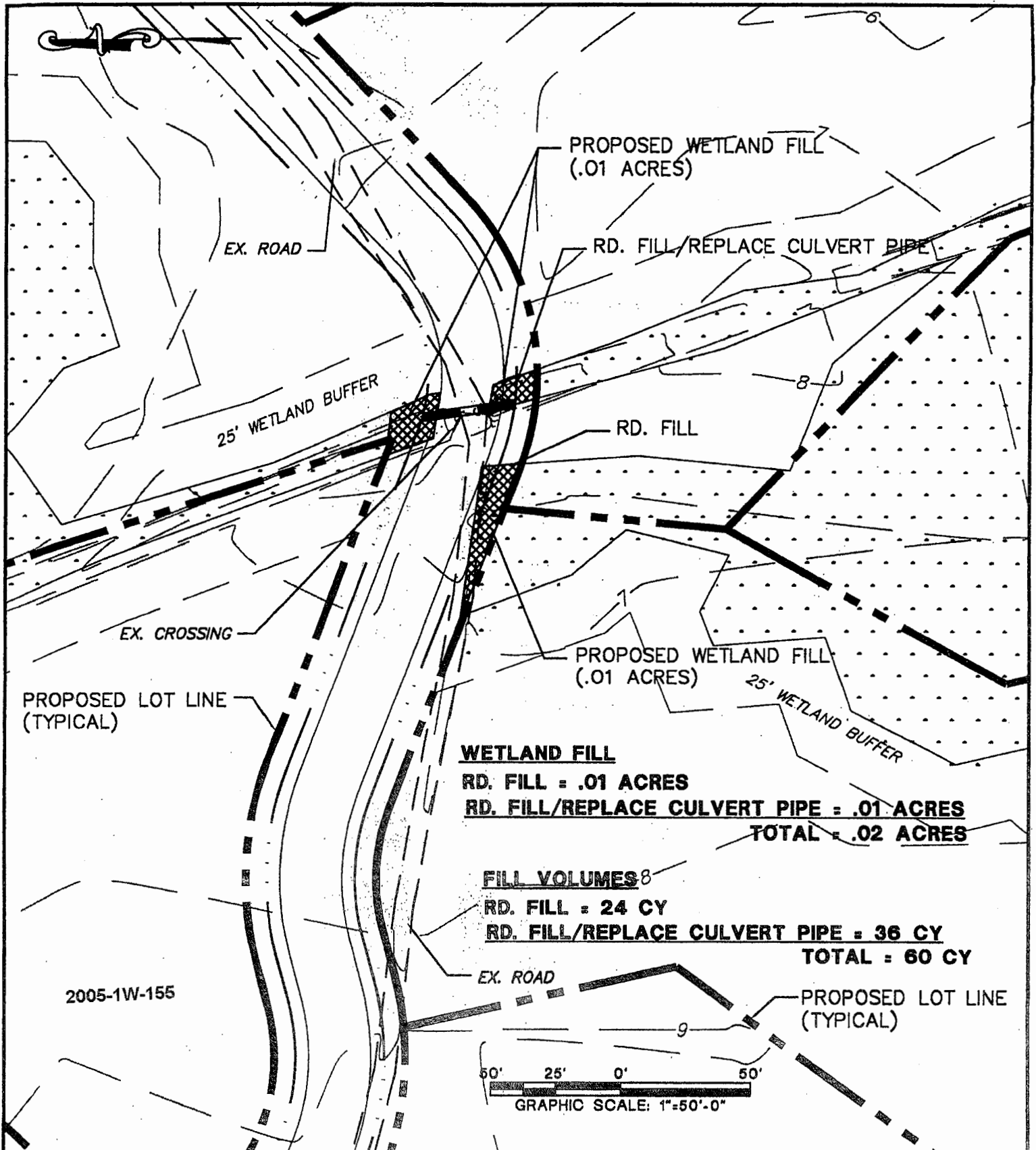
**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 7 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=30'
PROJECT:	03-594



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-6533
Fax: (912) 232-2920

WETLAND IMPACT PLAN FOR TELFAR PLANTATION SUBDIVISION

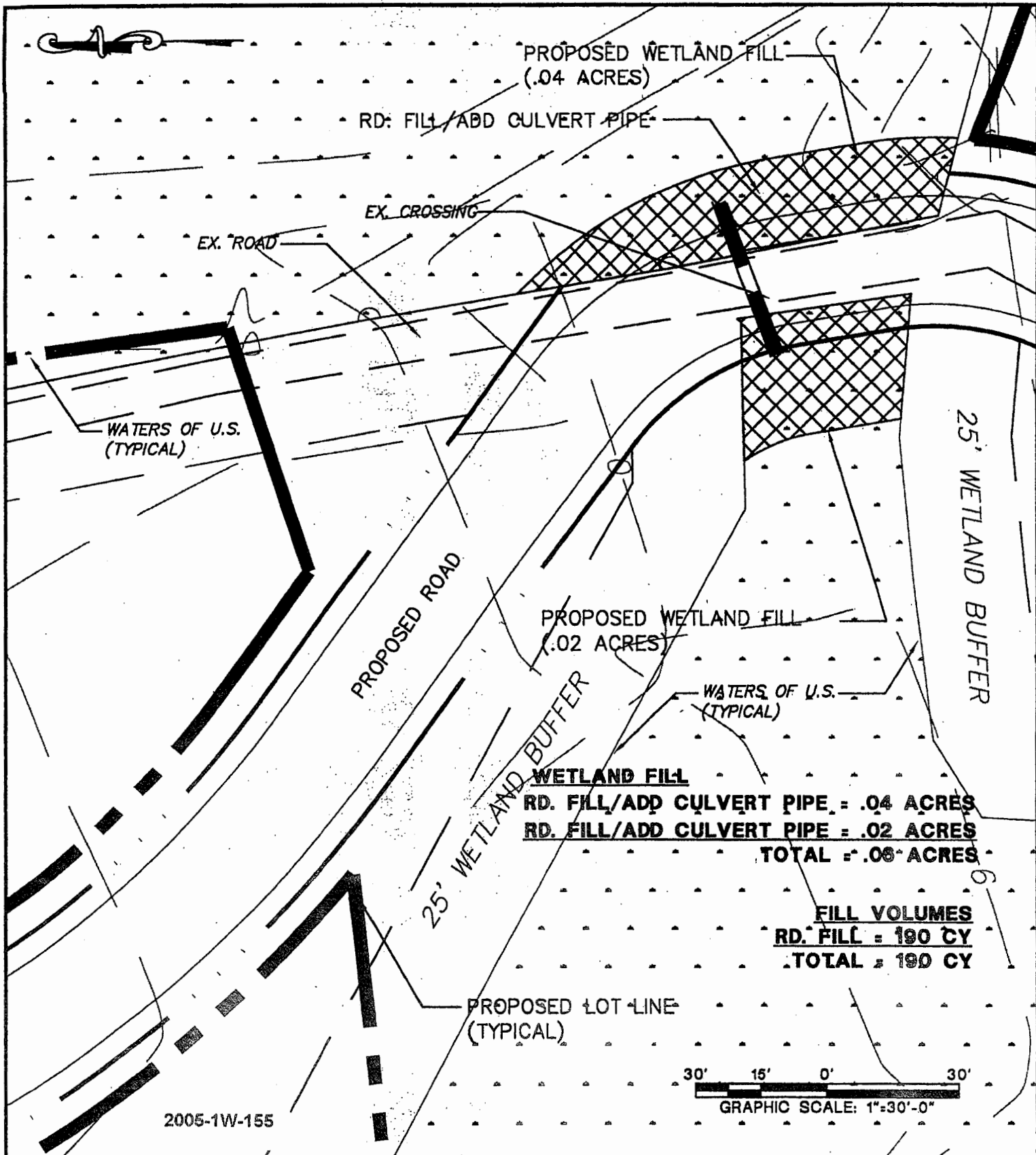
**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 8 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=50'
PROJECT:	03-594



2005-1W-155



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-6533
Fax: (912) 232-2920

WETLAND IMPACT PLAN FOR TELFAIR PLANTATION SUBDIVISION

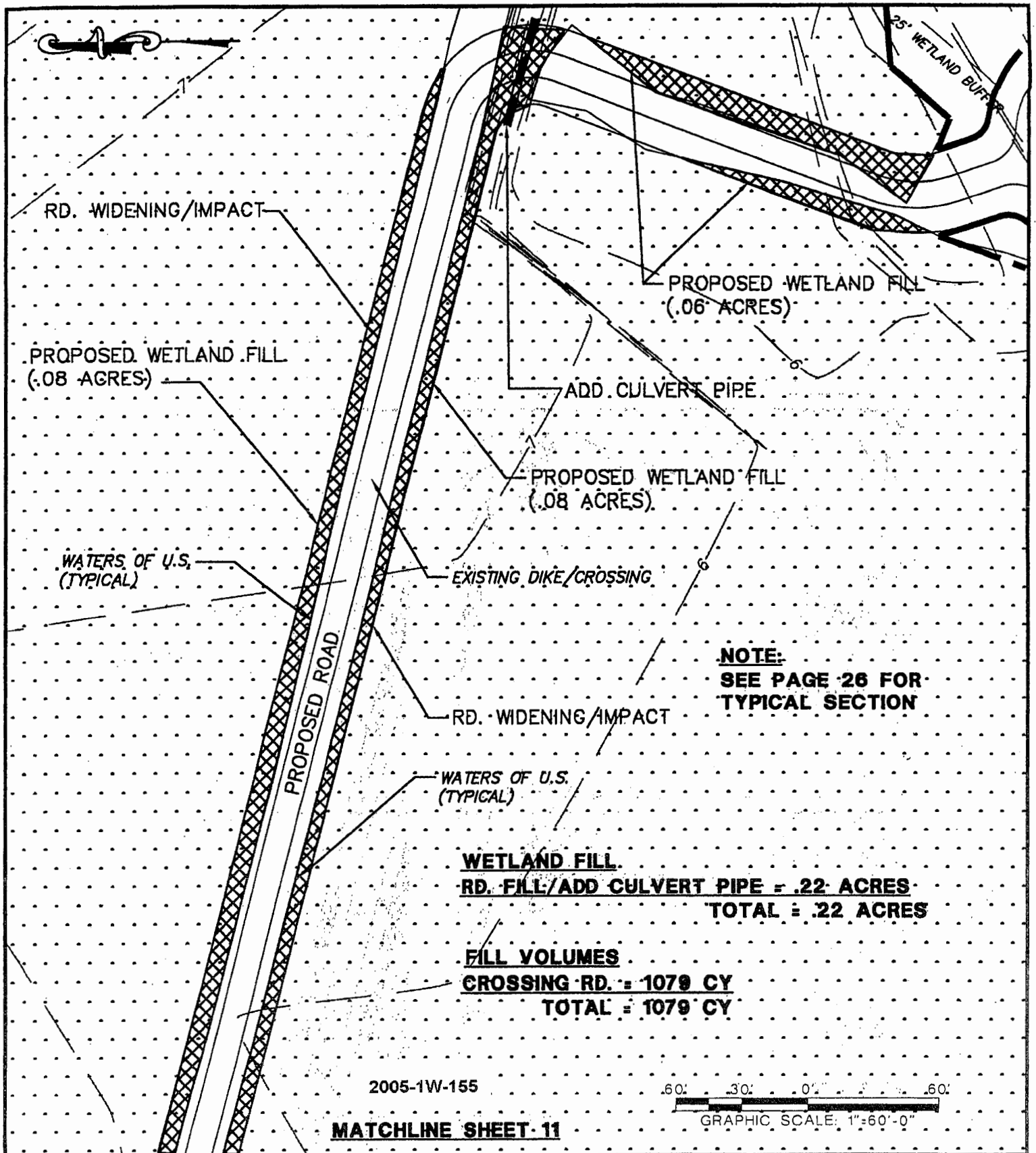
**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 9 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=30'
PROJECT:	03-594



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-8533
Fax: (912) 232-2920

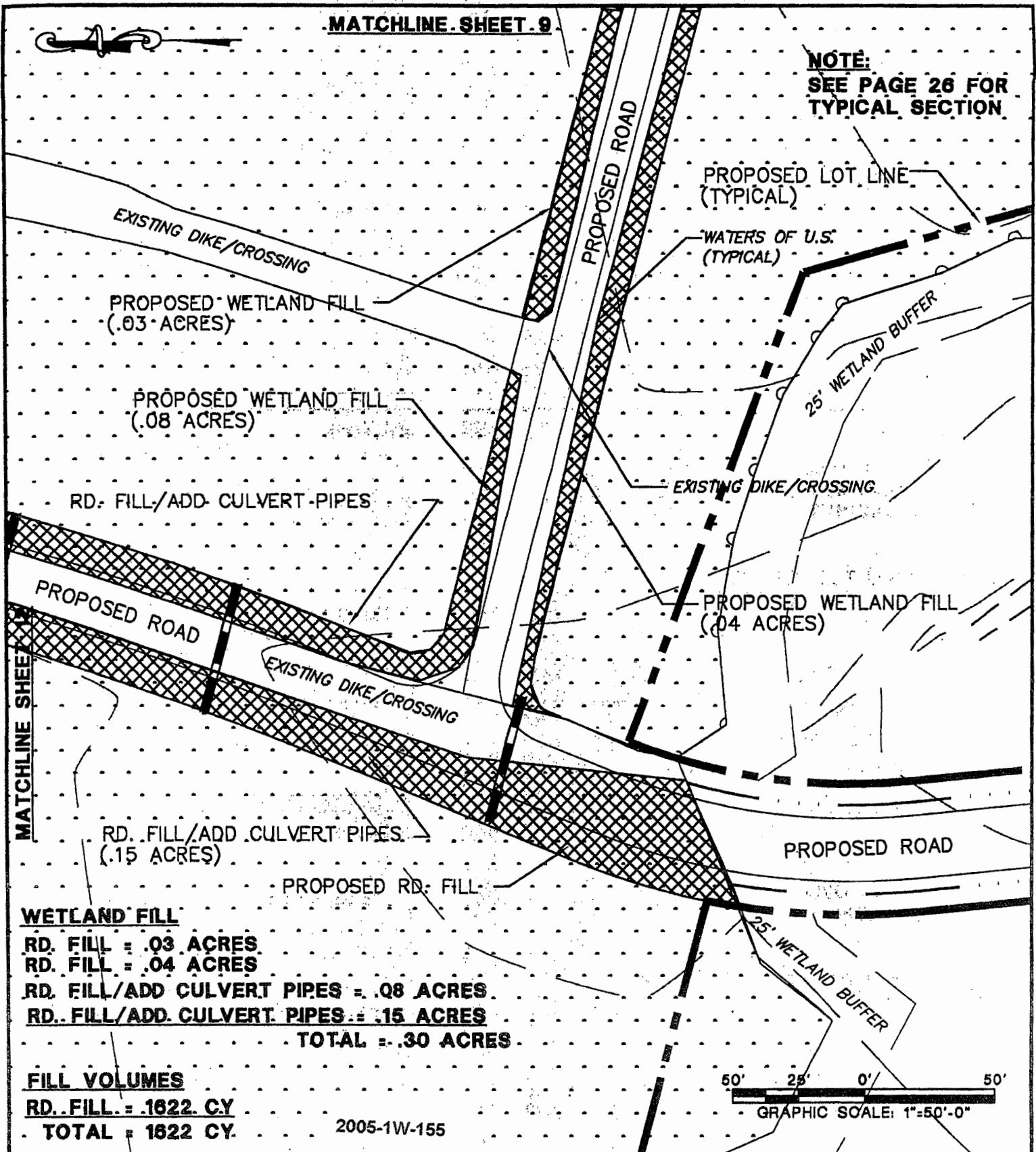
WETLAND IMPACT PLAN FOR TELFAR PLANTATION SUBDIVISION

**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**
COUNTY: JASPER
APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 10 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=60'
PROJECT:	03-594

NOTE:
SEE PAGE 26 FOR
TYPICAL SECTION



WETLAND FILL

RD. FILL = .03 ACRES

RD. FILL = .04 ACRES

RD. FILL/ADD CULVERT PIPES = .08 ACRES

RD. FILL/ADD CULVERT PIPES = .15 ACRES

TOTAL = .30 ACRES

FILL VOLUMES

RD. FILL = 1622 CY

TOTAL = 1622 CY

2005-1W-155



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-8533
Fax: (912) 232-2920

**WETLAND IMPACT PLAN FOR
TELFAR PLANTATION SUBDIVISION**

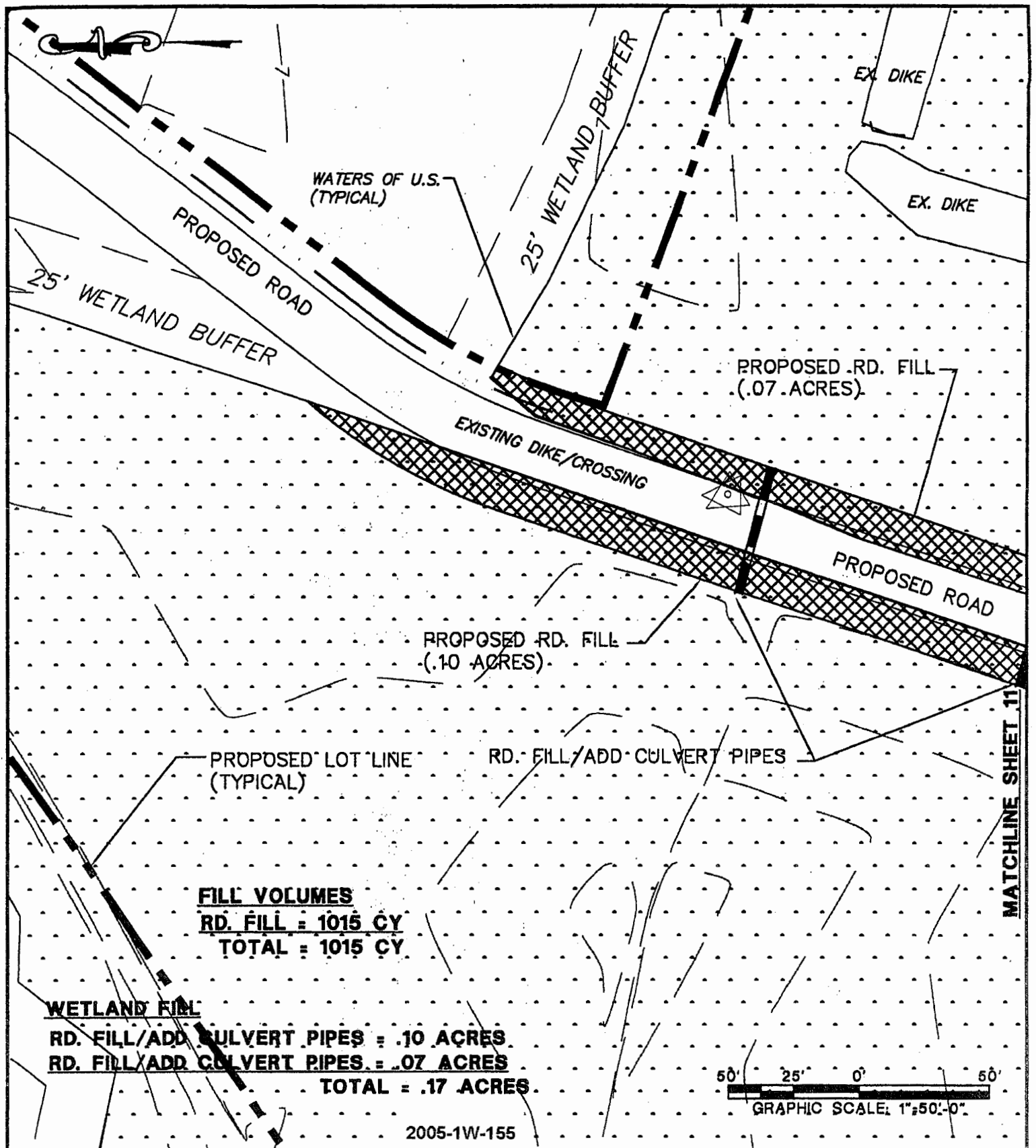
**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 11 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=50'
PROJECT:	03-594



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-6533
Fax: (912) 232-2920

WETLAND IMPACT PLAN FOR TELFAIR PLANTATION SUBDIVISION

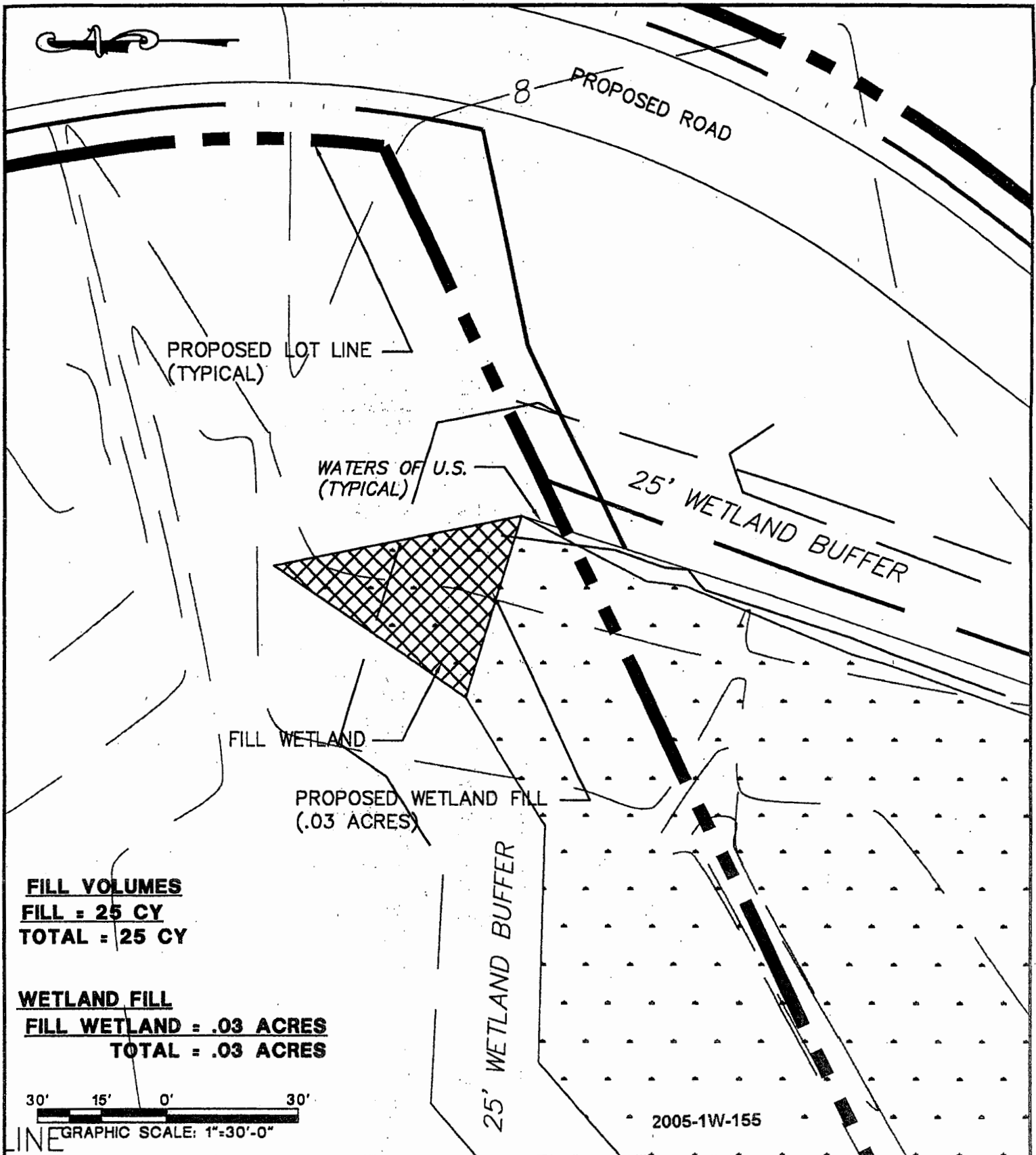
**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 12 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=50'
PROJECT:	03-594



FILL VOLUMES

FILL = 25 CY

TOTAL = 25 CY

WETLAND FILL

FILL WETLAND = .03 ACRES

TOTAL = .03 ACRES



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-6533
Fax: (912) 232-2920

WETLAND IMPACT PLAN FOR TELFAIR PLANTATION SUBDIVISION

**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 13 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=30'
PROJECT:	03-594

EX. TIDE GATE

(3) 36" CMP

PROPOSED WETLAND FILL
(.01 ACRES)

I.E. 5.28
I.F. 5.03
N.L. 4.99

I.E. 2.04
I.F. 2.14
N.L. 2.24

PROPOSED LOT LINE
(TYPICAL)

PROPOSED WETLAND FILL
(.05 ACRES)

WATERS OF U.S.
(TYPICAL)

FILL VOLUMES

DITCH FILL = 154 CY

RD. FILL = 17 CY

TOTAL = 171 CY

WETLAND FILL

RD. FILL = .01 ACRES

FILL DITCH = .05 ACRES

TOTAL = .06 ACRES

WATERS OF U.S.
(TYPICAL)

EX. ROAD

FILL DITCH

PROPOSED ROAD

PROPOSED ROAD

50' 25' 0' 50'
GRAPHIC SCALE: 1"=50'-0"

2005-1W-155

MATCHLINE SHEET 15



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-6533
Fax: (912) 232-2920

**WETLAND IMPACT PLAN FOR
TELFAR PLANTATION SUBDIVISION**

**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 14 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=50'
PROJECT:	03-694

PROPOSED WETLAND FILL
(.13 ACRES)

PROPOSED ROAD

FILL DITCH

WATERS OF U.S.
TYPICAL

PROPOSED LOT LINE
(TYPICAL)

FILL VOLUMES

DITCH FILL = 424 CY
TOTAL = 424 CY

WETLAND FILL

FILL DITCH = .13 ACRES
TOTAL = .13 ACRES

2005-1W-155

50' 25' 0' 50'
GRAPHIC SCALE: 1"=50'-0"

MATCHLINE SHEET 17



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-6533
Fax: (912) 232-2920

**WETLAND IMPACT PLAN FOR
TELFAR PLANTATION SUBDIVISION**

**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 15 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=50'
PROJECT:	03-594



PROPOSED LOT LINE
(TYPICAL)

WATERS OF U.S.
(TYPICAL)

PROPOSED WETLAND FILL
(1.00 ACRES)

FILL WETLAND

FILL VOLUMES
FILL = 1120 CY
TOTAL = 1120 CY

WETLAND FILL
FILL WETLAND = 1.00 ACRES
TOTAL = 1.00 ACRES

2005-1W-155

60' 30' 0' 60'
GRAPHIC SCALE: 1"=60'-0"



**EMC ENGINEERING
SERVICES, INC.**

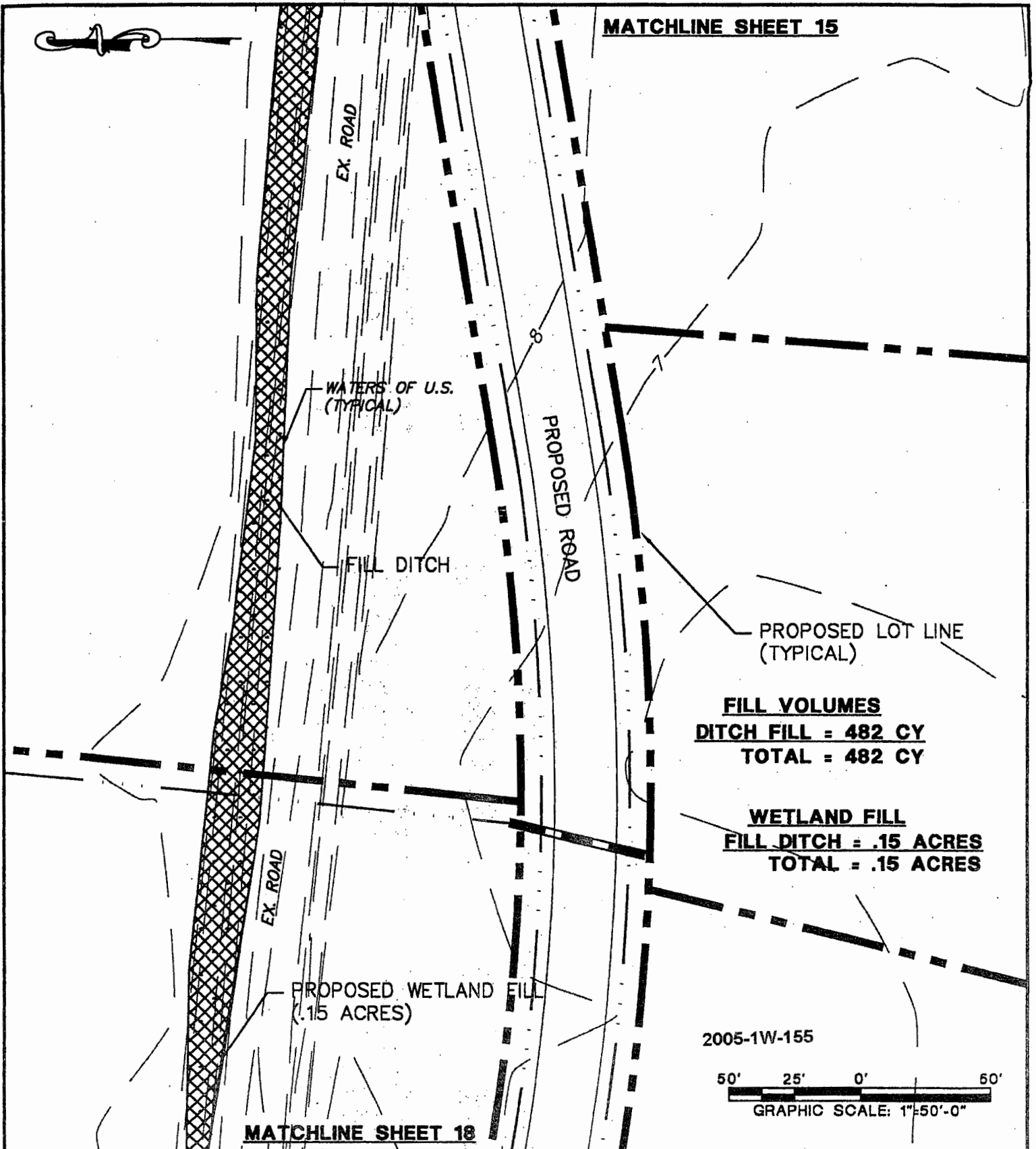
Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-6533
Fax: (912) 232-2920

WETLAND IMPACT PLAN FOR TELFAIR PLANTATION SUBDIVISION

**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**
COUNTY: JASPER
APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 16 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=60'
PROJECT:	03-594



FILL VOLUMES
DITCH FILL = 482 CY
TOTAL = 482 CY

WETLAND FILL
FILL DITCH = .15 ACRES
TOTAL = .15 ACRES

2005-1W-155

50' 25' 0' 60'
 GRAPHIC SCALE: 1"=50'-0"

MATCHLINE SHEET 18



**EMC ENGINEERING
 SERVICES, INC.**

Post Office Box 8101
 23 East Charlton Street
 Savannah, Georgia 31412
 Phone: (912) 232-8533
 Fax: (912) 232-2920

WETLAND IMPACT PLAN FOR TELFAIR PLANTATION SUBDIVISION

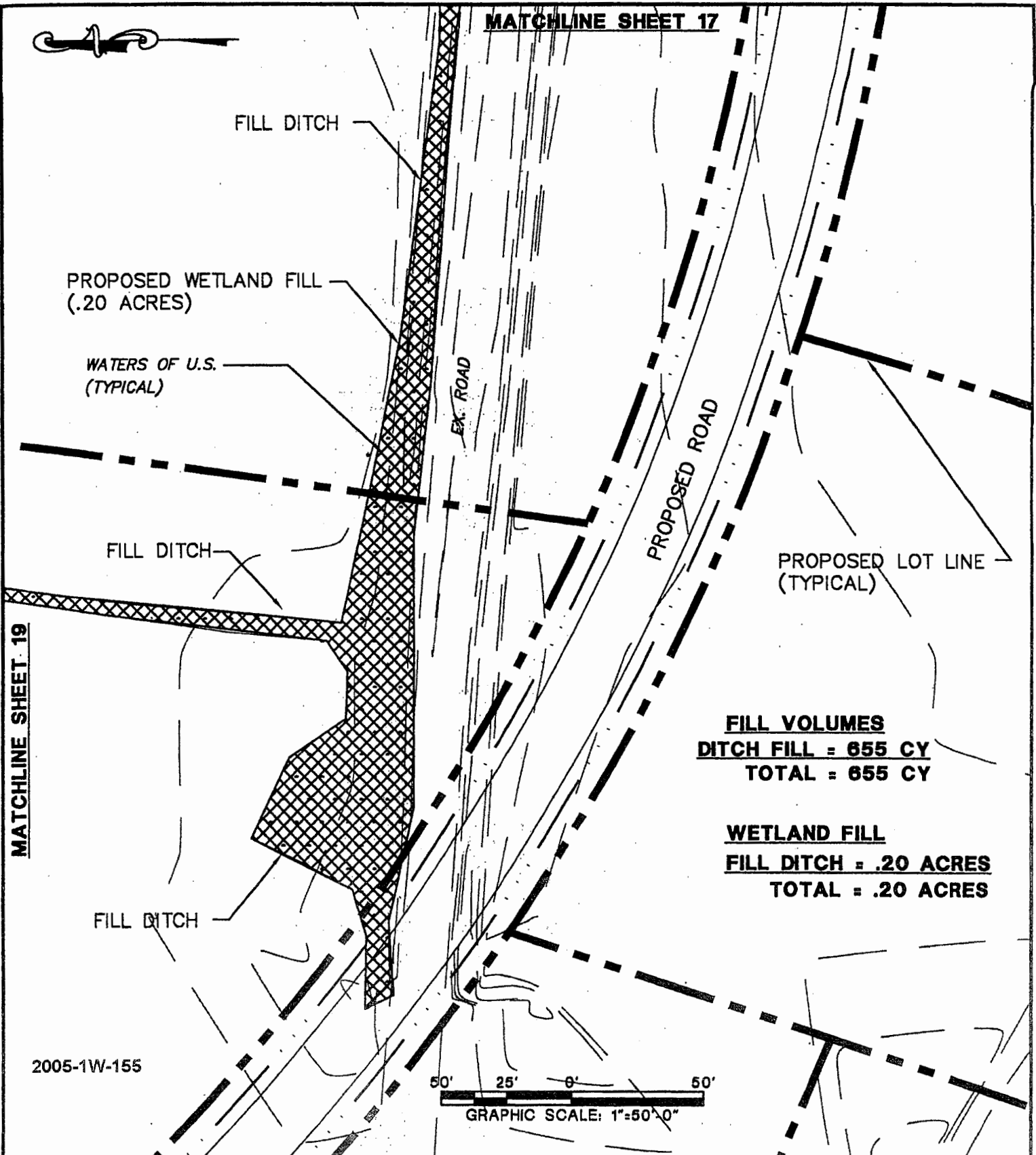
**PROPOSED ACTIVITY: WETLAND IMPACTS
 FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 17 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=50'
PROJECT:	03-594



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-6533
Fax: (912) 232-2920

WETLAND IMPACT PLAN FOR TELFAIR PLANTATION SUBDIVISION

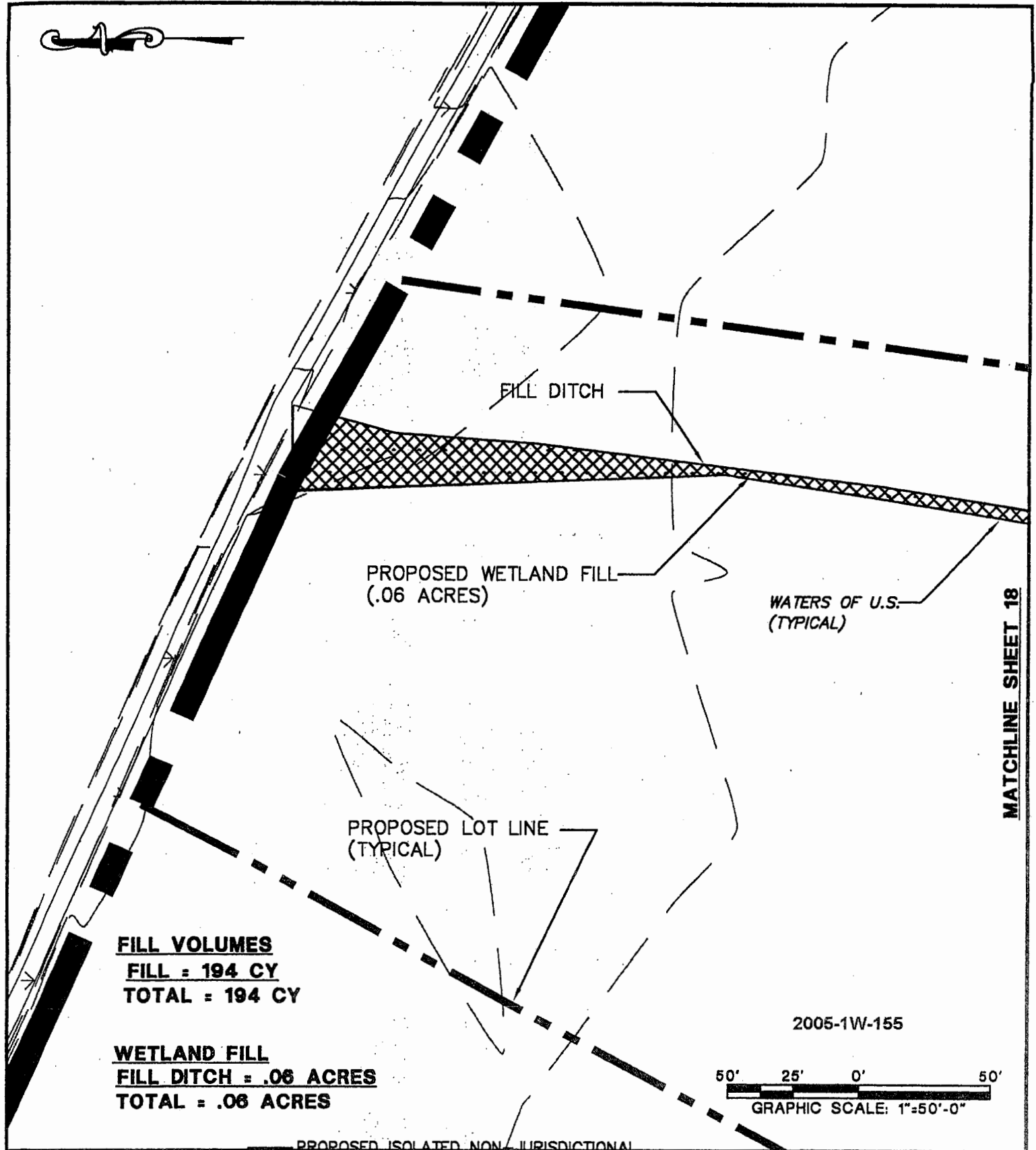
**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 18 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=50'
PROJECT:	03-594



MATCHLINE SHEET 18



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-8533
Fax: (912) 232-2920

WETLAND IMPACT PLAN FOR TELFAIR PLANTATION SUBDIVISION

**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 19 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=50'
PROJECT:	03-594

PROPOSED WETLAND FILL
(.15 ACRES)

WATERS OF U.S.
(TYPICAL)

25' WETLAND BUFFER

FILL WETLAND

PROPOSED LOT LINE
(TYPICAL)

25' WETLAND BUFFER

FILL VOLUMES

FILL = 122 CY

TOTAL = 122 CY

2005-1W-155

WETLAND FILL

FILL WETLAND = .15 ACRES

TOTAL = .15 ACRES

40' 20' 0' 40'
GRAPHIC SCALE: 1"=40'-0"



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-8533
Fax: (912) 232-2920

**WETLAND IMPACT PLAN FOR
TELFAR PLANTATION SUBDIVISION**

**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

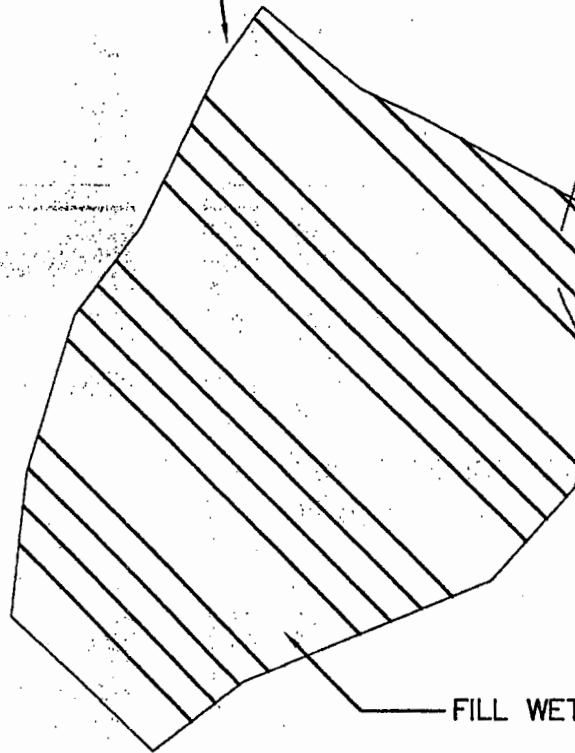
APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 20 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=40'
PROJECT:	03-594



PROPOSED ISOLATED NON-JURISDICTIONAL
WETLAND FILL (.27 ACRES)



FILL WETLAND

PROPOSED LOT LINE
(TYPICAL)

FILL VOLUMES

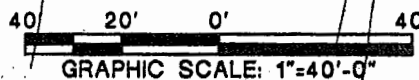
FILL = 218 CY

TOTAL = 218 CY

WETLAND FILL

FILL WETLAND = .27 ACRES

TOTAL = .27 ACRES



2005-1W-155



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-6533
Fax: (912) 232-2920

**WETLAND IMPACT PLAN FOR
TELFAR PLANTATION SUBDIVISION**

**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 21 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=40'
PROJECT:	03-594



PROPOSED ISOLATED NON-JURISDICTIONAL
WETLAND FILL (.07 ACRES)

FILL WETLAND

PROPOSED LOT LINE
(TYPICAL)

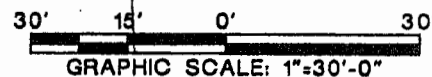
FILL VOLUMES

FILL = 57 CY
TOTAL = 57 CY

WETLAND FILL

FILL WETLAND = .07 ACRES
TOTAL = .07 ACRES

2005-1W-155



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-8533
Fax: (912) 232-2920

**WETLAND IMPACT PLAN FOR
TELFAR PLANTATION SUBDIVISION**

**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**
COUNTY: JASPER
APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 22 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=30'
PROJECT:	03-594

PROPOSED ISOLATED NON-JURISDICTIONAL
WETLAND FILL (1.56 ACRES)

FILL WETLAND

FILL VOLUMES

FILL = 1800 CY

TOTAL = 1800 CY

WETLAND FILL

FILL WETLAND = 1.56 ACRES

TOTAL = 1.56 ACRES

60' 30' 0' 60'
GRAPHIC SCALE: 1"=60'-0"

2005-1W-155



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-8533
Fax: (912) 232-2920

**WETLAND IMPACT PLAN FOR
TELFAIR PLANTATION SUBDIVISION**

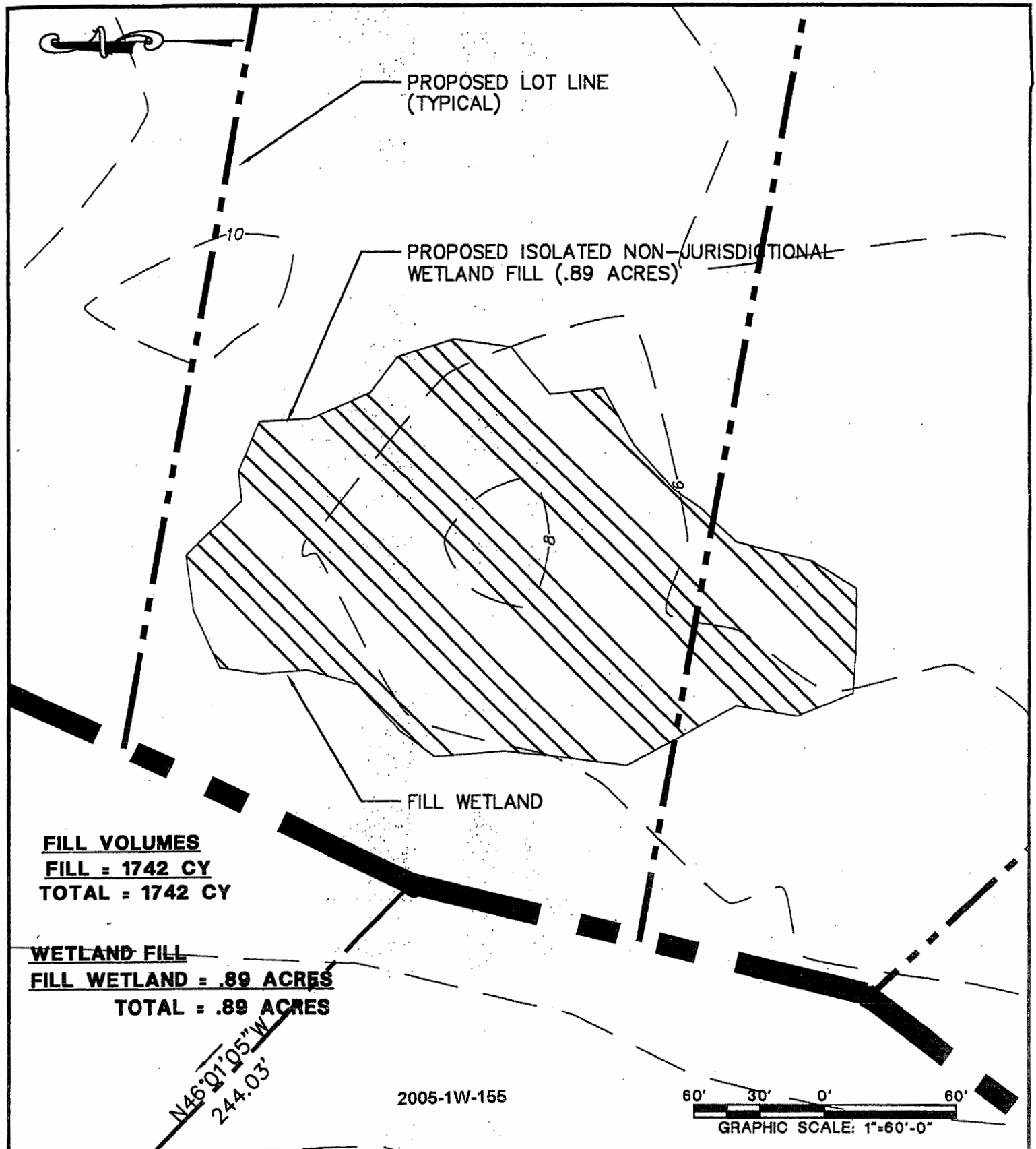
**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 23 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=60'
PROJECT:	03-594



FILL VOLUMES
FILL = 1742 CY
TOTAL = 1742 CY

WETLAND FILL
FILL WETLAND = .89 ACRES
TOTAL = .89 ACRES

N46°01'05"W
 244.03'

2005-1W-155



**EMC ENGINEERING
 SERVICES, INC.**

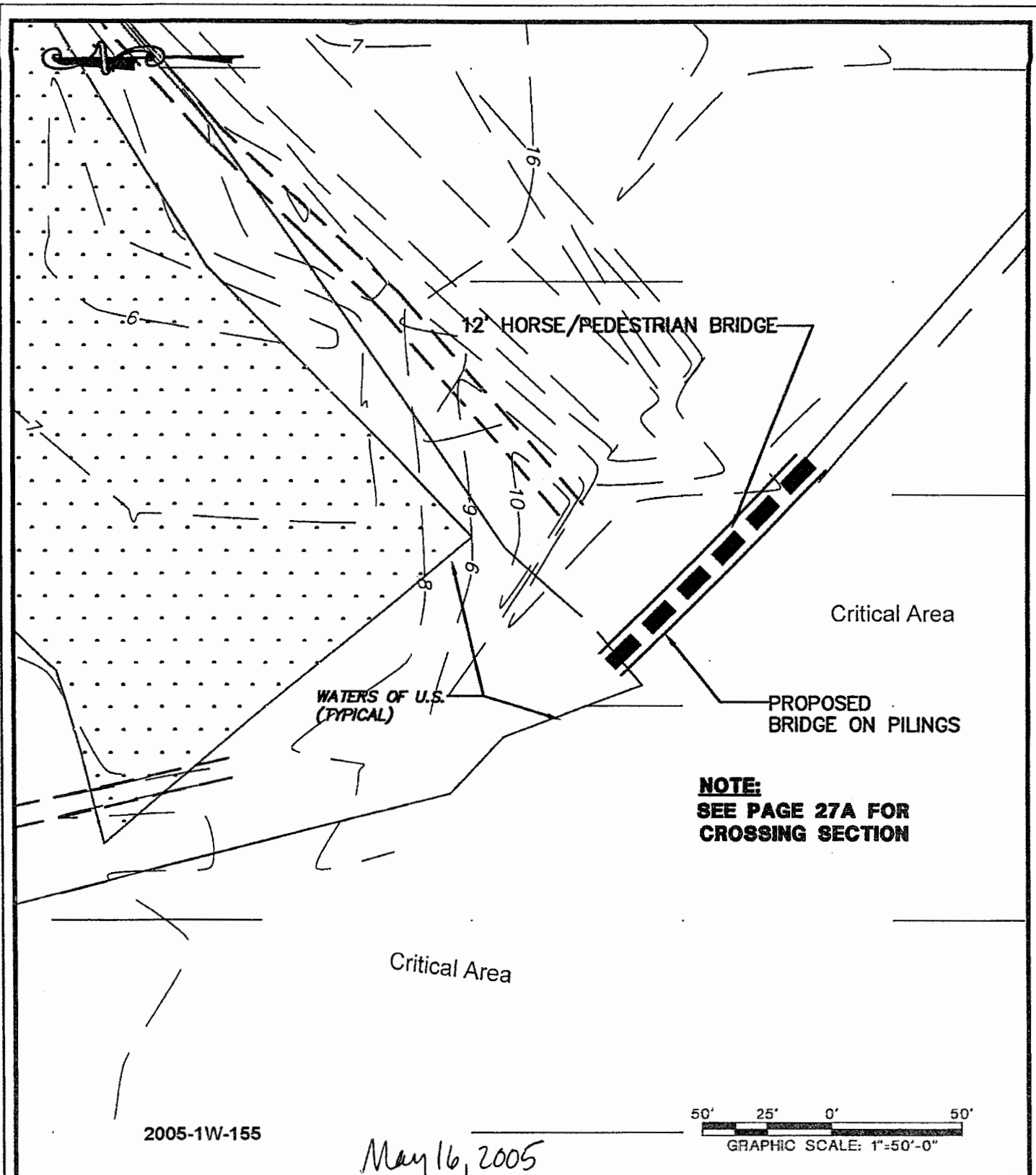
Post Office Box 8101
 23 East Charlton Street
 Savannah, Georgia 31412
 Phone: (912) 232-6533
 Fax: (912) 232-2920

WETLAND IMPACT PLAN FOR TELFAIR PLANTATION SUBDIVISION

**PROPOSED ACTIVITY: WETLAND IMPACTS
 FOR RESIDENTIAL SUBDIVISION**
COUNTY: JASPER
APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 24 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=60'
PROJECT:	03-594



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-8533
Fax: (912) 232-2920

NON-IMPACT BRIDGE EXHIBIT FOR TELFAIR PLANTATION SUBDIVISION

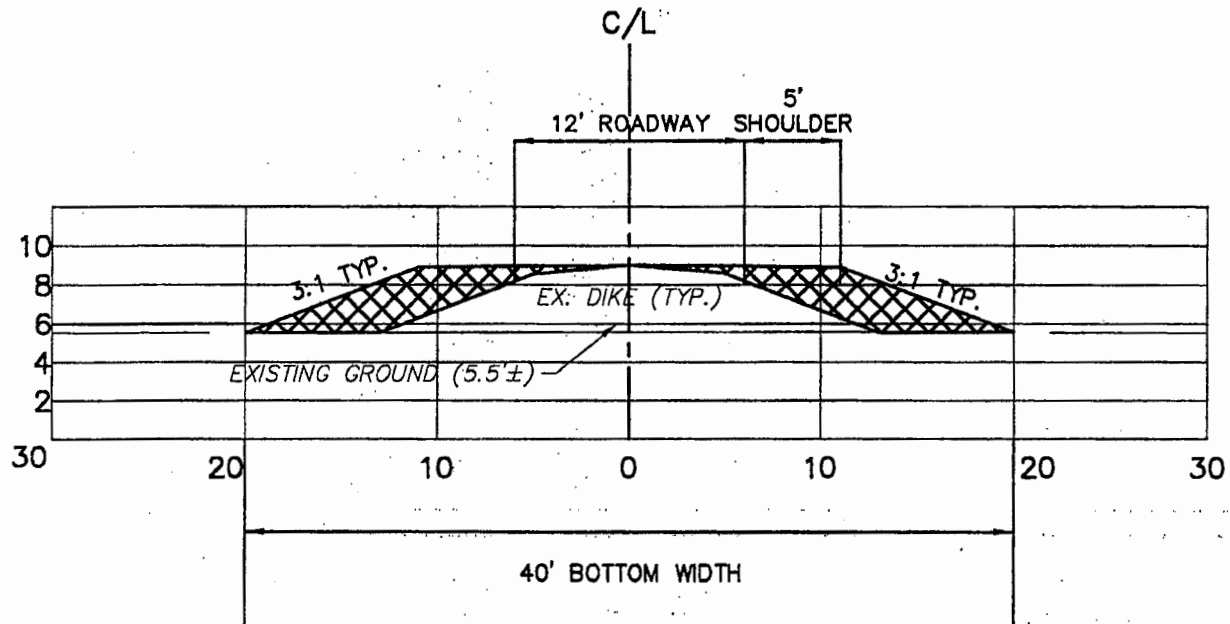
**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

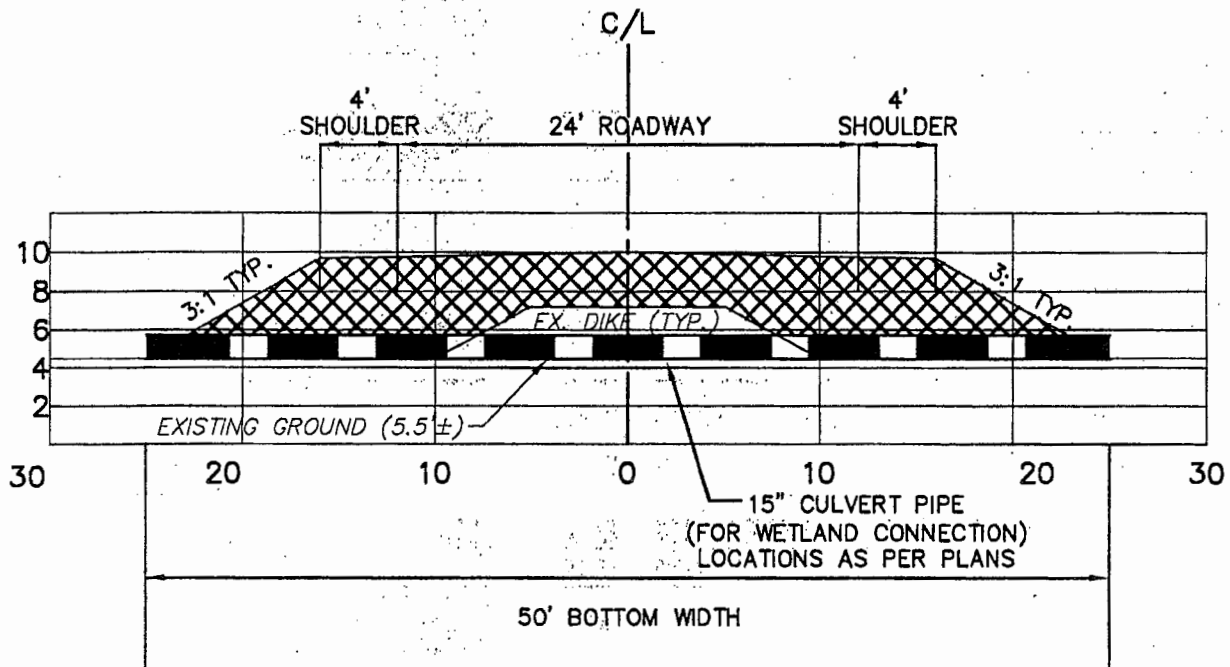
APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 25 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=50'
PROJECT:	03-594

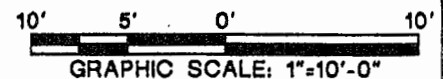


TYPICAL CROSSING (SHEET 10)



TYPICAL CROSSING (SHEETS 11 AND 12)

2005-1W-155



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-8533
Fax: (912) 232-2920

**ROAD CROSSING PROFILES FOR
TELFAR PLANTATION SUBDIVISION**

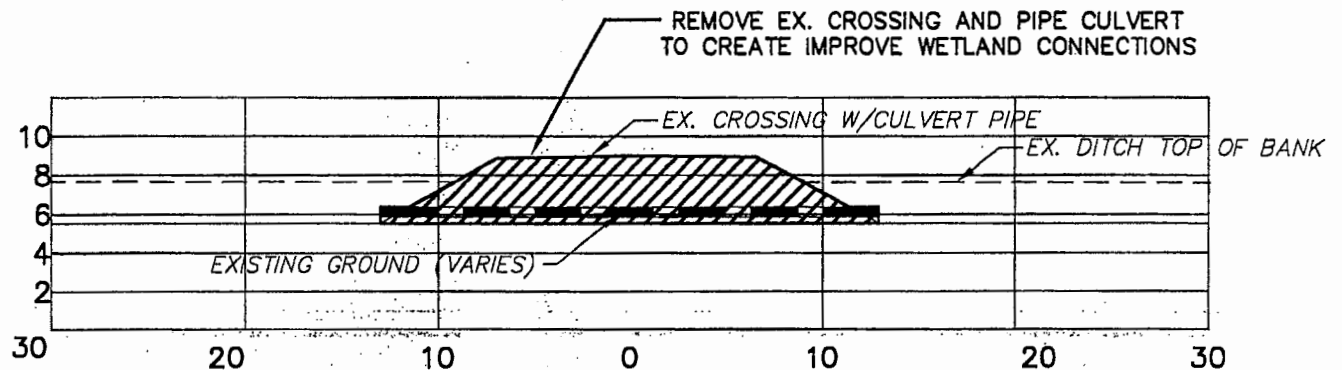
**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

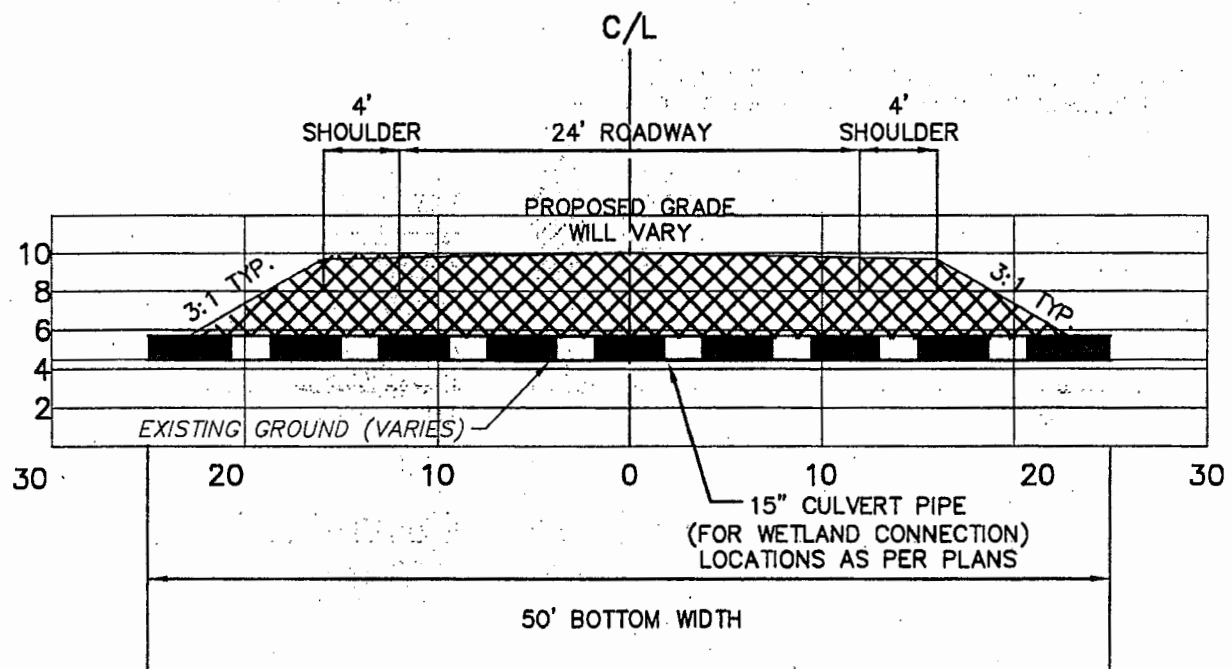
APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 26 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=10'
PROJECT:	03-594



TYPICAL EXCAVATION (SHEETS 5 AND 6)



TYPICAL CROSSING W/CULVERT PIPE

2005-1W-155



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-8533
Fax: (912) 232-2920

**CROSSING PROFILES FOR
TELFAR PLANTATION SUBDIVISION**

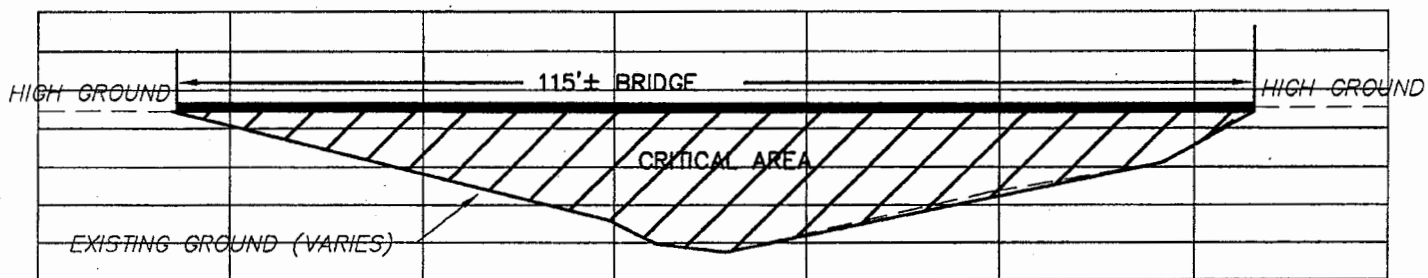
**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION**

COUNTY: JASPER

APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.

SHEET 27 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	1"=10'
PROJECT:	03-594



BRIDGE CROSSING (SHEET 25)

2005-1W-155

May 16, 2005



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-8533
Fax: (912) 232-2920

BRIDGE CROSSING PROFILE FOR TELFAIR PLANTATION SUBDIVISION

**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION
COUNTY: JASPER
APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.**

SHEET 27A OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	NTS
PROJECT:	03-594

TOTAL SITE: 562.84 ACRES

TOTAL CRITICAL WETLANDS: 314.09 ACRES

TOTAL JURISDICTIONAL NON-CRITICAL WETLANDS: 77.82 ACRES

TOTAL NON-JURISDICTIONAL WETLANDS: 2.79 ACRES

TOTAL UPLAND AREA: 168.14 ACRES

IMPACTS

TOTAL JURISDICTIONAL NON-CRITICAL WETLAND FILL/EXCAVATION: 2.61 ACRES

TOTAL JURISDICTIONAL NON-CRITICAL WETLAND FILL: 7267 CY

TOTAL JURISDICTIONAL NON-CRITICAL WETLAND EXCAVATION: 32 CY

TOTAL ISOLATED NON-JURISDICTIONAL WETLAND FILL: 2.79 ACRES

TOTAL ISOLATED NON-JURISDICTIONAL WETLAND FILL: 3817 CY

MITIGATION

TOTAL PRESERVATION AREA "NON-IMPOUNDMENT": 0 ACRES

TOTAL PRESERVATION NON-CRITICAL WETLANDS: 75.21 ACRES

**TOTAL BUFFER AREA: 755,766.00 S.F. (17.35 ACRES)
(AVG. BUFFER WIDTH = 25')**

TOTAL PRESERVATION CRITICAL WETLANDS: 314.09

2005-1W-155



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-6533
Fax: (912) 232-2920

**WETLAND IMPACT SUMMARY FOR
TELFAR PLANTATION SUBDIVISION**

**PROPOSED ACTIVITY: WETLAND IMPACTS
FOR RESIDENTIAL SUBDIVISION
COUNTY: JASPER
APPLICANT: NORTH SAVANNAH PROPERTIES, LLC.**

SHEET 28 OF 28

DESIGN:	PTL
GRAPHICS:	PTL
REVIEW:	AH
DATE:	NOV. 8, 2004
SCALE:	N/A
PROJECT:	03-594

**NORTH SAVANNAH PROPERTIES, LLC
ADVERSE IMPACT FACTORS FOR WETLANDS
AND OTHER WATERS OF THE U.S. EXCLUDING STREAMS**

FACTORS	OPTIONS					
Lost Type	Type C 0.2		Type B 2.0		Type A 3.0	
Priority Category	Tertiary 0.5		Secondary 1.5		Primary 2.0	
Existing Condition	Very Impaired 0.1		Impaired 1.0	Slightly Impaired 2.0	Fully Functional 2.5	
Duration	Seasonal 0.1	0 to 1 0.2	1 to 3 0.5	3 to 5 1.0	5 to 10 1.5	Over 10 2.0
Dominant Impact	Shade 0.2	Clear 1.0	Dredge 1.5	Drain 2.0	Impound 2.5	Fill 3.0
Cumulative Impact	$0.05 \times \Sigma AA_i$					

Note: For the **Cumulative Impact** factor, ΣAA_i stands for the sum of the acres of adverse impacts to aquatic areas for the overall project. When computing this factor, round to the nearest tenth decimal place using even number rounding. Thus 0.01 and 0.050 are rounded down to give a value of zero while 0.051 and 0.09 are rounded up to give 0.1 as the value for the cumulative impact factor. **The cumulative impact factor for the overall project must be used in each area column on the Required Mitigation Credits Worksheet below.**

Required Mitigation Credits Sample Worksheet

Factor	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Lost Type	3.0	2.0				
Priority Category	0.5	0.5				
Existing Condition	2.5	2.5				
Duration	2.0	2.0				
Dominant Impact	3.0	3.0				
Cumulative Impact	0.13	0.14				
Sum of r Factors	$R_1 = 11.13$	$R_2 = 10.14$	$R_3 =$	$R_4 =$	$R_5 =$	$R_6 =$
Impacted Area	$AA_1 = 2.61$	$AA_2 = 2.79$	$AA_3 =$	$AA_4 =$	$AA_5 =$	$AA_6 =$
$R \times AA =$	29.1	28.3				

Total Required Credits = $\Sigma (R \times AA) =$

57.4

Area 1 = Jurisdictional Impacts (Non-Critical Area Wetlands)

Area 2 = Isolated Non-Jurisdictional Impacts

2005-1W-155

NORTH SAVANNAH PROPERTIES, LLC
PRESERVATION MITIGATION FACTORS FOR WETLANDS AND OTHER
WATERS OF THE U.S. EXCLUDING STREAMS

Factors	Options				
Priority Category	Territory 0.1		Secondary 0.2		Primary 0.4
Existing Condition	Impaired -0.1		Slightly Impaired 0		Fully Functional 0.1
Degree of Threat	Low -0.1		Moderate 0.1		High 0.2
Control	Covenant Private 0		Covenant POA 0.1	Conservation Easement 0.4	Transfer Fee Title Conservancy 0.6
Kind	Category 5 -0.1	Category 4 0	Category 3 0.1	Category 2 0.2	Category 1 0.3
Location	Zone 5 -0.1	Zone 4 0	Zone 3 0.1	Zone 2 0.2	Zone 1 0.3

None: Preservation credit should generally be limited to those areas that qualify as Fully Functional or Slightly Impaired. Impaired sites should be candidates for enhancement or restoration credit, not preservation credit. In special circumstances when Impaired sites are allowed preservation credit (e.g. within the scope of some OCRM wetland master planned projects), a negative factor will be used to calculate credits as per the matrix table.

Proposed Preservation Mitigation Sample Worksheet

Factor	Area 1	Area 2	Area 3	Area 4	Area 5
Priority Category	0.1				
Existing Condition	0.1				
Degree of Threat	0.1				
Control	0.1				
Kind	0.3				
Location	0.3				
Sum of m Factors	$M_1 = 1.0$	$M_2 =$	$M_3 =$	$M_4 =$	$M_5 =$
Mitigation Area	$A_1 = 371.95$	$A_2 =$	$A_3 =$	$A_4 =$	$A_5 =$
$M \times A =$	371.95				

Total Preservation Credits = $\sum (M \times A) =$

371.95

NORTH SAVANNAH PROPERTIES, LLC

RESTORATION AND ENHANCEMENT MITIGATION FACTORS FOR WETLANDS AND OTHER WATERS OF THE U.S. EXCLUDING STREAMS

Factors	Options				
Net Improvement	Minimal Enhancement-----to-----Excellent Restoration 0.1 4.0				
Control	N.A. 0	Covenant Private 0.1	Covenant POA 0.2	Conservation Easement 0.4	Transfer Fee Title Conservancy 0.6
Temporal Lag	N.A.* 0	Over 20 -0.3	10 to 20 -0.2	5 to 10 -0.1	0 to 5 0
Credit Schedule	Schedule 5* 0	Schedule 4 0.1	Schedule 3 0.2	Schedule 2 0.3	Schedule 1 0.4
Kind	Category 5 -0.1	Category 4 0	Category 3 0.2	Category 2 0.3	Category 1 0.4
Location	Zone 5 -0.1	Zone 4 0	Zone 3 0.2	Zone 2 0.3	Zone 1 0.4

N.A. = Not Applicable

*Use this option to calculate credits for enhancement by buffering

Proposed Restoration or Enhancement Mitigation Sample Worksheet

Factor	Area 1	Area 2	Area 3	Area 4	Area 5
Net Improvement	0.1				
Control	0.2				
Temporal Lag	0.0				
Credit Schedule	0.4				
Kind	0.4				
Location	0.4				
Sum of m Factors	M ₁ = 1.5	M ₂ =	M ₃ =	M ₄ =	M ₅ =
Mitigation Area	A ₁ = 17.35	A ₂ =	A ₃ =	A ₄ =	A ₅ =
M x A =	26.0				

Total Restoration/Enhancement Credits = $\sum (M \times A) =$

26.0

Area 1 = Buffer Enhancement

NORTH SAVANNAH PROPERTIES, LLC
WETLANDS AND OTHER WATERS OF THE U.S. EXCLUDING STREAMS

Mitigation Summary Worksheet For Permit Application # _____ 2005-1W-155 _____

I. Required Mitigation

A. Total Required Mitigation Credits = 57.4

II. Non-Banking Mitigation Credit Summary

	Credits	Acres
B. Creation		
C. Restoration and/or Enhancement (non-Buffer Enhancement)		
D. Restoration and/or Enhancement (Buffer Enhancement)	26.0	17.35
E. Total No Net Loss Non-Bank Mitigation = B + C + D	26.0	17.35
F. Preservation	372.0	371.95
G. Total Proposed Non-Bank Mitigation = E + F	398.0	389.3

III. Banking Mitigation Credit Summary

	Credits	Acres
H. Creation		
I. Restoration and/or Enhancement (non-Buffer Enhancement)		
J. Restoration and/or Enhancement (Buffer Enhancement)		
K. Total No Net Loss Non-Bank Mitigation = H + I + J		
L. Preservation		
M. Total Proposed Non-Bank Mitigation = K + L		

IV. Grand Totals

	Credits	Acres
N. Total Preservation Mitigation = F + L	372.0	371.95
O. Total Non-Preservation Mitigation = E + K	40.4	17.35
P. Total Creation = B + H		
Q. Total Restoration and/or Enhancement (Non-Buffer Enhancement) = C + I		
R. Total Proposed Mitigation = G + M	398.0	389.3

NORTH SAVANNAH PROPERTIES, LLC

Summary

The Total Mitigation Credits (Row R) should be equal to or greater than the total Required Mitigation Credits (Row A) for the proposed mitigation to be acceptable. The other requirements given in the SOP must also be satisfied, e.g., in the credits column, Row O must equal at least 50% of Row A and the addition of Row P and Row Q must equal at least 25% of Row A. If the answer to any of the questions below is no, then the proposed mix and/or quantity of mitigation is not in compliance with the policy and the plan should be revised or rejected, unless a variance is approved.

	Yes	No
$PMC \geq RMC$ or in words Are the credits in Row R greater than or equal to Row A?	✓	
$PMC_{\text{Non Preservation}} \geq \frac{1}{2} RMC$ or in words Are the credits in Row O greater than or equal to 50% of Row A?	✓	
$PMC_{\text{(Creation + Restoration/Enhancement (Non-Buffer Enhancement))}} \geq \frac{1}{4} RMC$ or in words Are the credits in Row P plus the credits in Row Q greater than or equal to 25% of Row A?		✓

2005-1W-155